

The CONSTRUCTOR

OFFICIAL PUBLICATION OF THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA



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Number 3

BUILDINGS

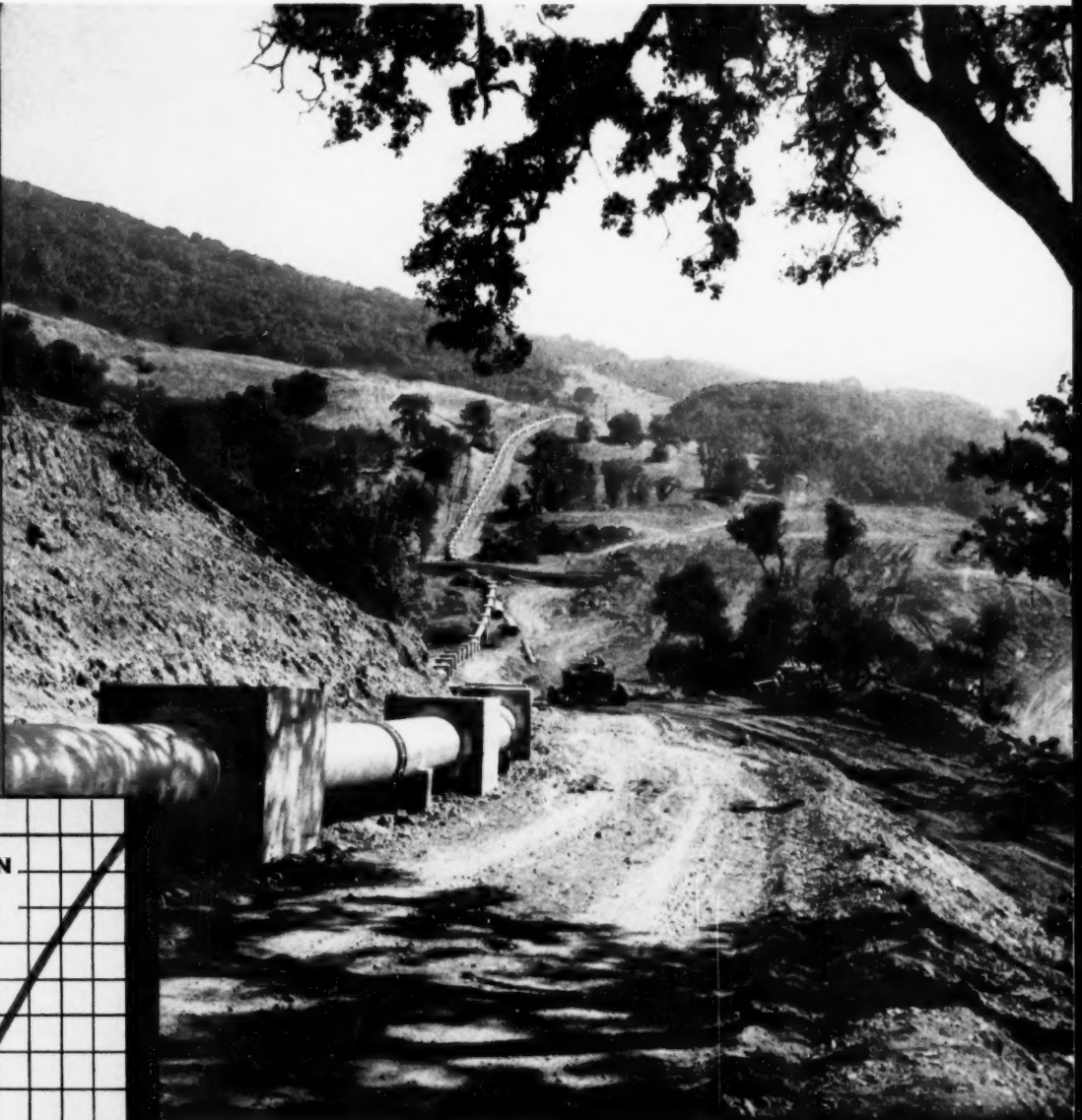
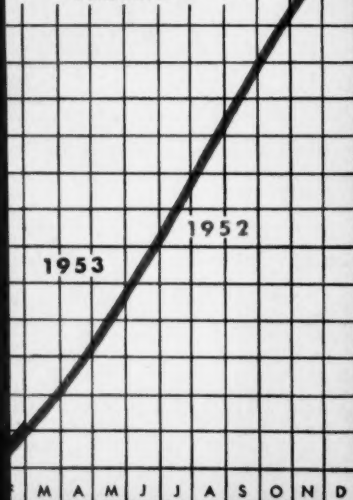
HIGHWAYS

AIRPORTS

RAILROADS

PUBLIC WORKS

NEW CONSTRUCTION
(Billions of Dollars)
CUMULATIVE



Eisenhower Scraps Economic Controls—21

Construction Curbs Virtually Ended—22

in

1953

for the 16th Consecutive Year



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give you **ALL-WHEEL DRIVE** ***PLUS*** **ALL-WHEEL STEER**
the matchless combination that delivers unequalled performance

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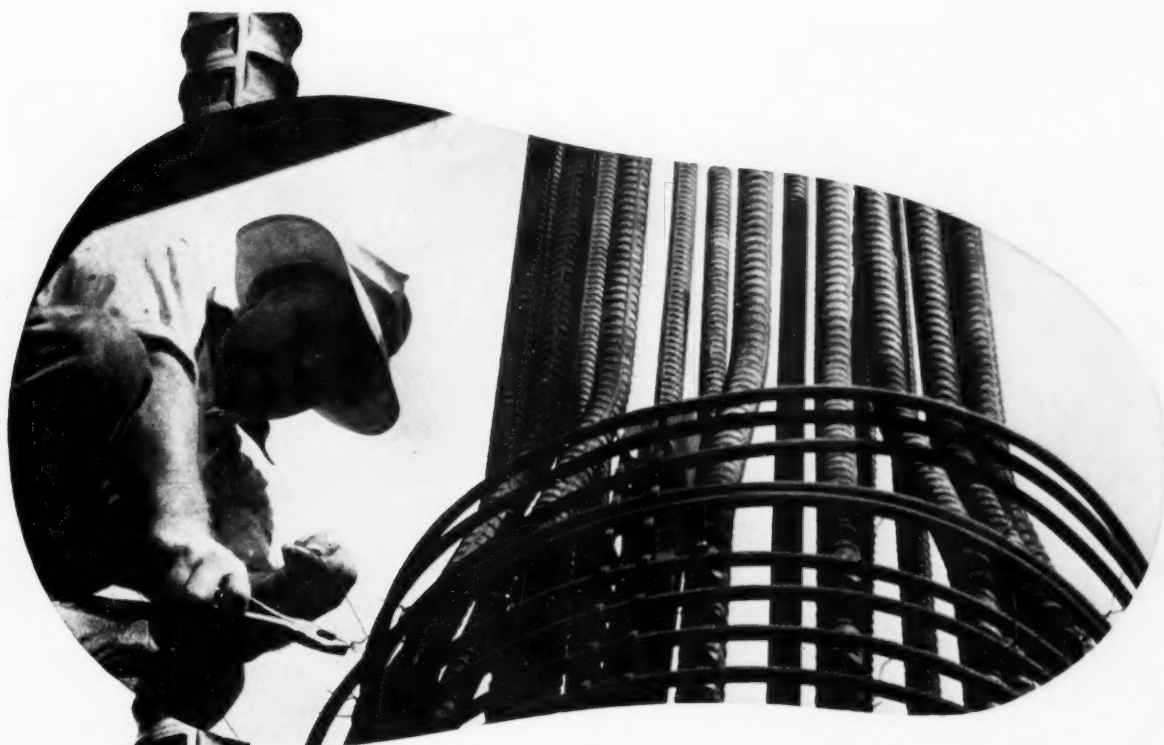
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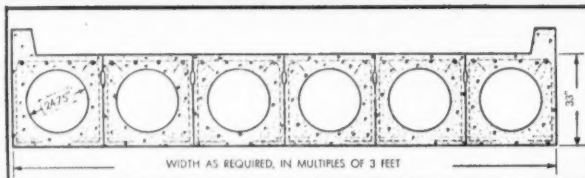
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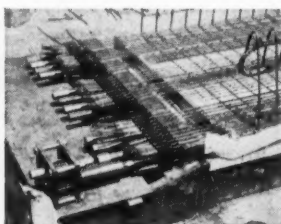
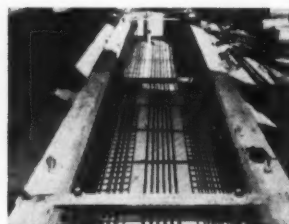
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Typical cross-section of prestressed concrete bridge shows assembly of standard units 3 ft. wide. Top, views of Gleniron, Pa., Bridge. Below, anchorages for prestressing, spaced 120 ft. apart, have total capacity of 200 tons. Seven-strand steel cable, 0.25" diameter, is tensioned to 135,000 psi, in groups of ten. Using 'Incor', members are lifted 3-4 days sooner . . . maximum speed, minimum cost.



STRESSING the Advantages of PRESTRESSED Concrete

Prestressed, Precast Concrete Members Lifted 3-4 Days Sooner, using 'INCOR' 24-Hour Cement

● This 265' prestressed, precast concrete bridge, with 25'4" roadway, recently completed at Gleniron, Union County, by Pennsylvania Department of Highways—one of 73 bridges of this type, with clear spans up to 50'—consists of 45 prestressed members, each 53' long, 3' wide, 33" deep, weighing 20 tons, produced by CONCRETE PRODUCTS COMPANY OF AMERICA with Air-entraining 'INCOR' Cement.

With 7 men and crane operator, MURPHY CONSTRUCTION COMPANY, Hummelstown, Pa., erected this bridge in less than a week. Cost: about 25% less than estimated for built-in-place reinforced concrete of conventional design.

Tensioning is usually applied when concrete attains 3500-4000 lbs. compressive strength. Dependable 'Incor' high early strength makes it easily possible to lift prestressed members 3-4 days sooner than with ordinary concrete. For high strengths, low water-ratio is necessary, and 'Incor' mixed with 4½ gal. water per bag of cement develops over 4000 lbs. in 48 hours.

COMPRESSIVE STRENGTH OF 'INCOR' CONCRETE

Max. Water Gal./bag	6 x 12-in. cylinders, cured moist at 70°F. Compressive Strength—p. s. i.					
	1 day	2 day	3 day	4 day	7 day	28 day
4½	3550	4550	5100	5450	6050	7000
5	3150	4050	4600	4950	5550	6450
5½	2750	3650	4150	4500	5050	5950

Dependable 'Incor'* high ultimate strength means that initial 'Incor' economies are matched by long-time durability and lowest annual cost—attested by over 25 years' performance of America's FIRST high early strength portland cement.

*Reg. U. S. Pat. Off.



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THE ENTIRE CONSTRUCTION FIELD

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The CONSTRUCTOR

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COVER

Concrete-covered pipes laid in a winding trail over California hills make a pretty picture of a project just being completed by Guy F. Atkinson Co., A.G.C., San Francisco. They will carry water reserves from the new Lexington Dam near Los Gatos through a rich agricultural area.

—Photo Courtesy of Caterpillar Tractor Co.

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Railroad girder bridge being placed in position at Dallas, Texas



JOB-ENGINEERED FINANCE PLANS

The Oldt Construction Company contracted this girder bridge project for a railroad in

Dallas, Texas. Speed was vital to insure uninterrupted train schedules. Job time: two hours.

C.I.T. Corporation financed all the cranes in the picture, plus various other types of heavy equipment for the Oldt Construction

Company. Experienced C.I.T. representatives stand ready at all times to add their specialized knowledge of finance problems in the construction business to other Oldt projects.

Any contractor can avail himself of this same convenient service and *earn more profits* by the wise use of C.I.T. job-engineered finance plans. A call or letter will put our men "on the job" for you.

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General decontrol of prices, wages and materials by the government is moved systematically upon orders of President Eisenhower, who said he would not ask for standby controls, but would request legislation to allocate scarce and critical items to national defense needs after the Controlled Materials Plan ends on June 30. Meanwhile, the Senate Banking and Currency Committee has begun hearings on standby controls legislation. Committee Chairman Capehart has introduced two alternate measures, one which would provide over-all standby control authority and the other which would give the President power to invoke a 90-day freeze on wages, prices or rents if necessary. (Page 21)

Decontrol of most construction curbs by the National Production Authority was hailed as relief from "red tape burden" by A.G.C. Managing Director H. E. Foreman. On Feb. 16 NPA removed controls from the start and continuation of all kinds of construction projects beginning this month. Rated orders will continue to be given to direct military and atomic energy projects. For practical purposes there are no regulations on the start of any type construction project, and all projects can compete in the open market for the controlled materials not covered by rated orders. (Page 22)

Greatest industrial expansion the nation has ever known has now passed its peak under impetus of the tax benefit program, the Office of Defense Mobilization reported last month. The program, which has sparked defense industry expansion, was initiated in 1950 to give special tax considerations to industries constructing new facilities producing critical goods. (Page 24)

The judicial review bill, S.24 as amended, designed to offset effects of the November 1951 decision of the Supreme Court in the Wunderlich Case and to provide for judicial review of disputes arising under federal contracts, was reported favorably to the Senate. However, the bill was stymied by objections of two Senators at the request of the Air Force Department. There is possibility that bill might come up again this month. (Page 27)

Legislation extending the Reorganization Act of 1949 until April 1, 1955 was completed last month with passage by the Senate, permitting the President to submit plans for reorganization of the Executive Branch of the government, which would be effective in 60 days unless rejected by a Constitutional majority of either House. (Page 28)

Economy drive in Congress gained momentum as the legislative body slashed supplemental appropriations bill, its first money bill, by 60% as the bill providing more than \$947 million went to conference this month for adjustment of minor differences. Bulk of cut was a \$1.2 billion Defense Department item to meet higher pay, subsistence and other authorized costs. (Page 28)

Taft-Hartley Law hearings, which will probably result in amendments to the law, began last month with testimony of Congressmen and past and present officials of the National Labor Relations Board stating their proposed changes in the law. Early this month the House Labor Committee began hearing representatives of management and labor and is expected to conclude next month with Labor Secretary Durkin voicing the Administration's views. (Page 34)

Civilian construction backlog may be stimulated by the removal of government controls and the increased availability of supplies, A.G.C. President Arthur S. Horner recently declared at the annual Conference for Construction Engineers of the Bureau of Reclamation in Denver. Potentially there should be a "continued high level of activity" in construction, but the big question is whether or not this will be realized, he added. (Page 44)

Reclamation Bureau officials, in response to a request by the A.G.C. Task Unit for Reclamation Specifications, will again recommend to the Secretary of Interior that contractors performing extra work for the bureau be given a more equitable allowance for overhead and profit. The task unit's request was made at a meeting of the A.G.C. group with bureau representatives last month in Denver. (Page 45)

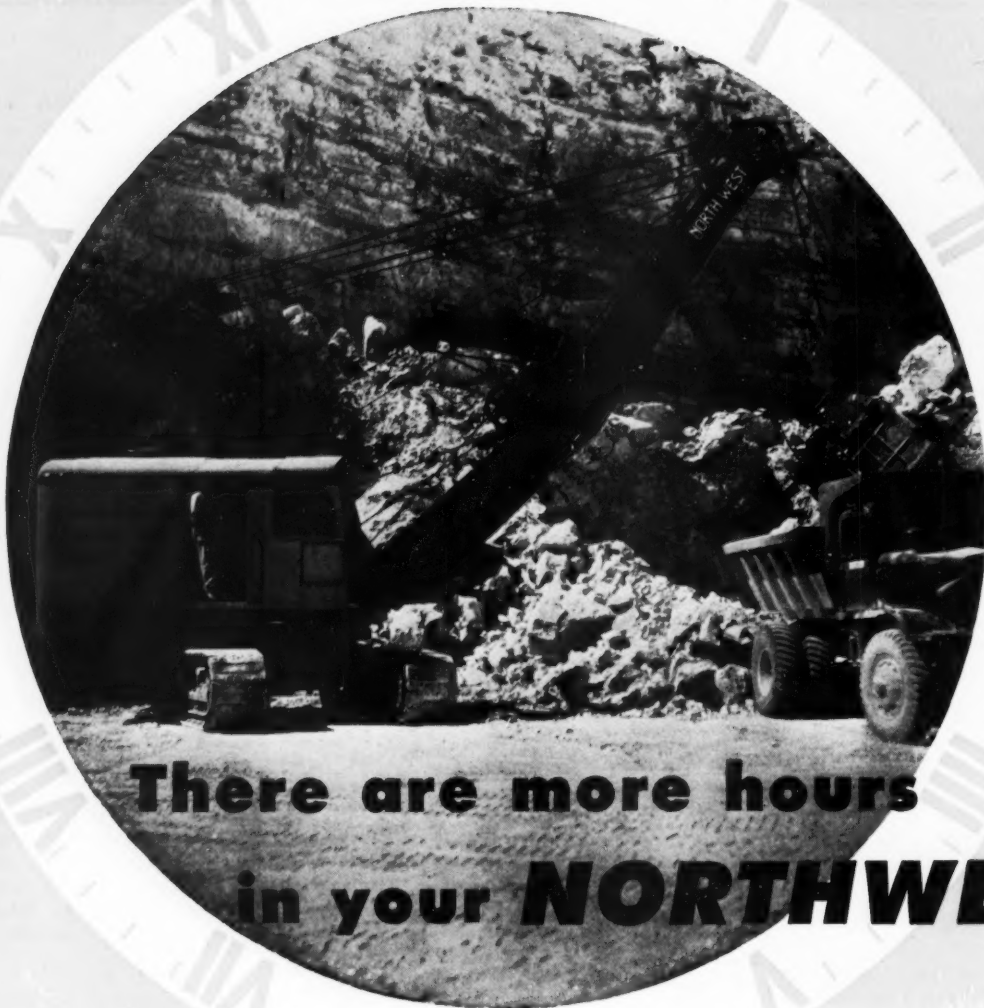
Three construction specialists were recently appointed to serve as negotiators responsible for construction contract matters in regional renegotiation boards in Los Angeles and Chicago. Paul Spencer, of San Dimas, Calif., president and owner of the construction company bearing his name and a former director of the Southern California Chapter of A.G.C., was named to the Los Angeles board. (Page 48)

Indictment of concentration of the nation's industrial might in large cities was leveled recently in a report made for the National Security Resources Board by 9 Eastern colleges. Entitled "Project East River," the 10-volume report presented a case for immediate and radical measures to spread out America's defense facilities. (Page 51)

Attendance record assured at Miami convention of A.G.C. March 23-26 by Frank J. Rooney, chairman of the general committee for the meeting. With reservations already totaling more than 1,300, it is rapidly becoming apparent that attendance will number 1,500. Also, A.G.C. announces names of five of the speakers who will address the convention. (Page 41)

Gross national product, the market value of the nation's output of goods and services, was record \$346 billion last year, compared with \$329 billion in 1951, the Office of Business Economics, Department of Commerce announced last month. Improved conditions of supply and demand were seen in comparatively stable prices last year as well as gradual relaxation of economic controls.

Missouri Basin Survey Commission, set up to study activities of the Corps of Engineers and the Departments of Agriculture and Interior, recently recommended a 5-man commission to direct federal government resources development in the Missouri River Basin. The oversee commission would coordinate construction plans of the three agencies and would have "broad powers . . . to give unified and coherent direction to the hitherto uncoordinated agency programs." (Page 55)



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WHEN you buy a Northwest you are buying a *real* Rock Shovel—equipment built to meet the grinding punishment of the hardest kind of digging. Your Northwest is rugged and sturdy. It is designed and built to be easily cared for and service records in the hands of many contractors show that maintenance is at the minimum on Northwest machines.

There is a lot of talk of shortages—equipment may not be so easy to get. Keep your Northwest in good condition. There are more hours in your Northwest than a less efficient rig.

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A Series of Graphs Outlining the Construction Trend

Compiled by The Associated General Contractors of America

TREND OF CONSTRUCTION COSTS

The average of construction costs in the principal construction centers of the United States for February stands at Index Number 398, according to the A.G.C. Index. The cost figure for February 1952 was 378. The 1913 average equals 100.

WAGE AND MATERIAL PRICE TRENDS

The average of wages in the principal construction centers of the United States stands at 557 for February. One year ago the average stood at 512. The average prices paid by contractors for basic construction materials for February stand at Index

Number 293. The average a year ago stood at 290. The 1913 average, again, equals 100.

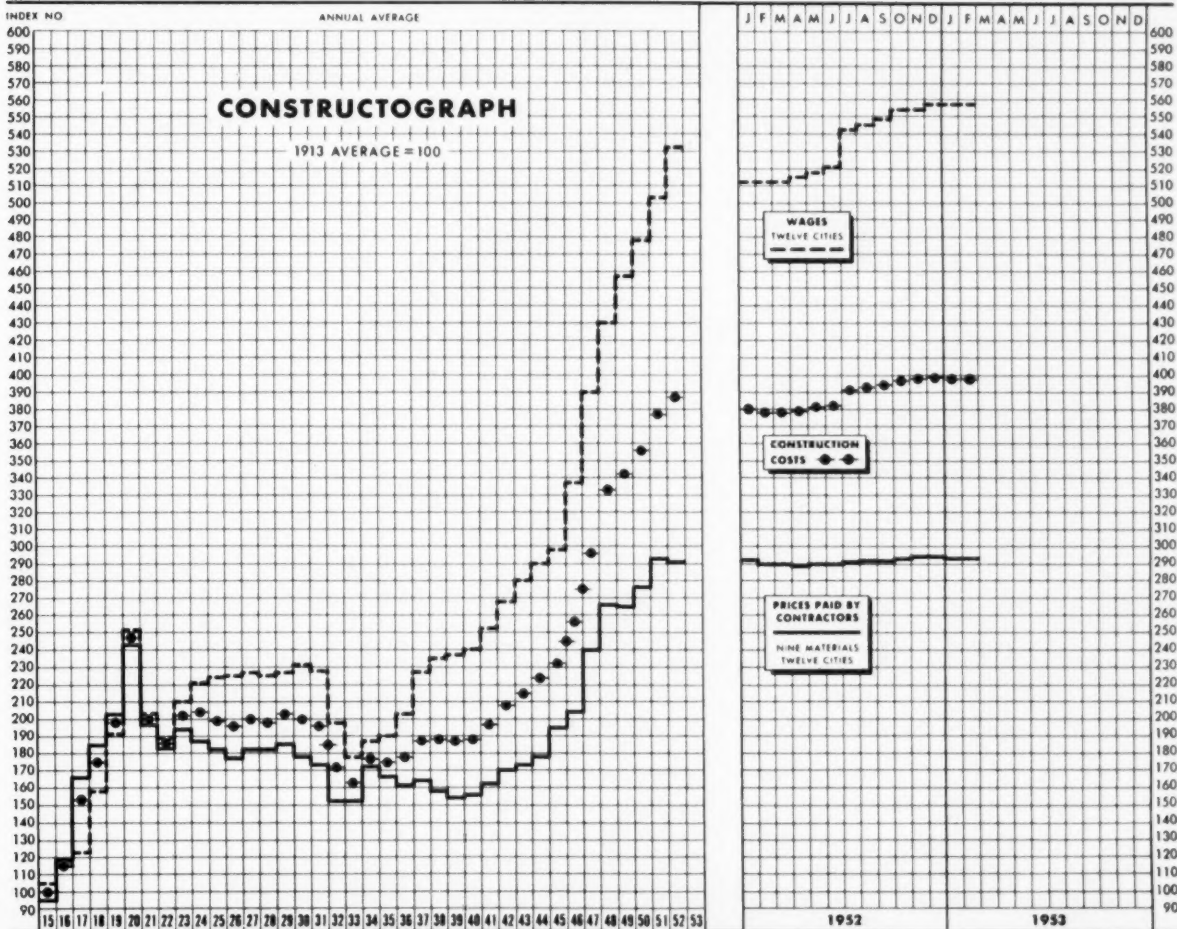
CONTRACT AWARDS IN 37 STATES

The volume of contracts awarded during January (Index Number 204, based on 1936-38) is a decrease of 75 points from December and an increase of 24 points from January 1952. (F. W. Dodge Corp.)

REVENUE FREIGHT LOADINGS

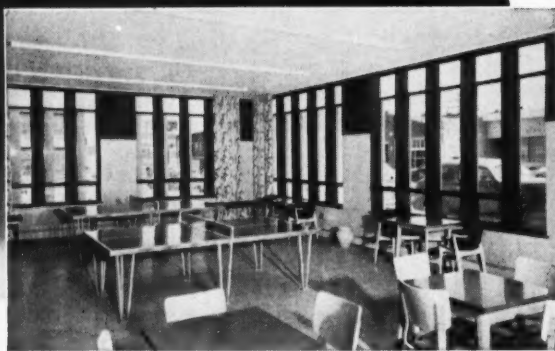
Revenue freight loaded during the first 8 weeks of 1953 totaled 5,414,100 cars. For the same period in 1952, loadings amounted to 5,716,965 cars. This represents a decrease of 5%.

● Wage, Material Price and Construction Cost Trends





Sun-Shaded Building Gets Abundant Light and Ventilation through TRUSCON Steel Windows



Y. M. C. A., Oklahoma City, Okla.
Sorey-Hill and Sorey, Architects
Harmon Construction Co.,
General Contractors

shine. Interior is abundantly day-lighted and ventilated through well-chosen Truscon Steel Windows.

On upper floors, Truscon Series 138 Double-Hung Windows combine with horizontal sunshades to produce the sweeping modern effect. At lower levels, Truscon Intermediate Casement Windows complement the strong vertical sunshades. Abundant light and precise ventilation control are assured for the life of this building.

More and more, the world is windowed by Truscon. Truscon offers you the greatest choice of steel window styles and sizes for every building need. You'll find complete details in Sweet's; write us for literature describing all Truscon Steel Building Products.



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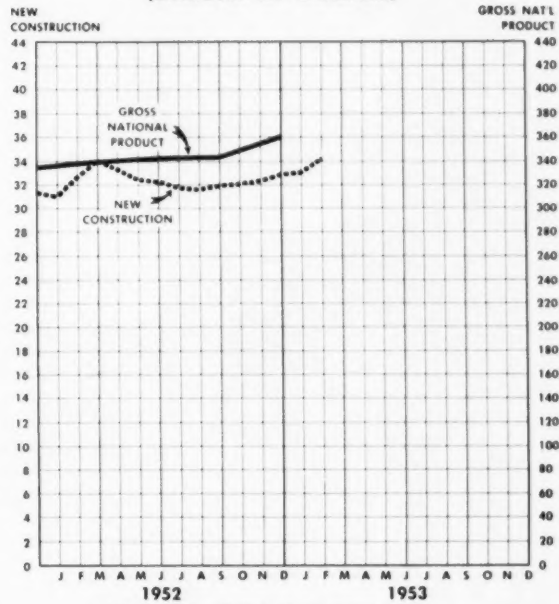
REPUBLIC STEEL CORPORATION

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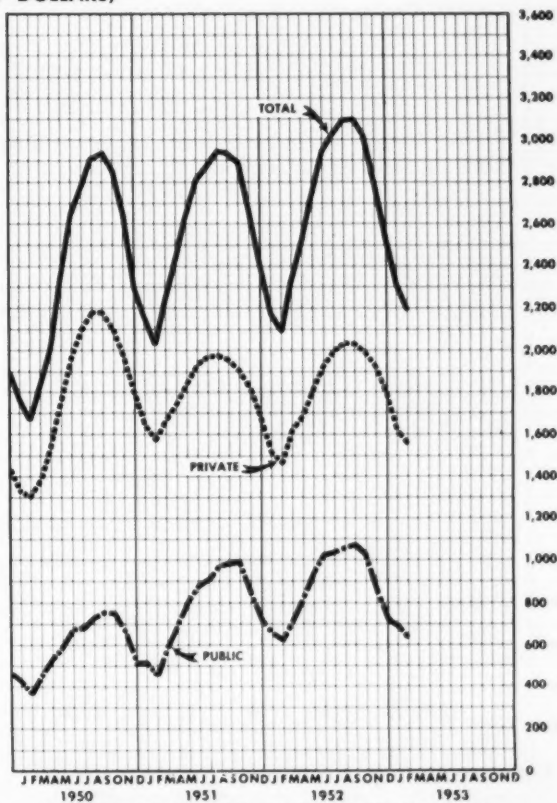
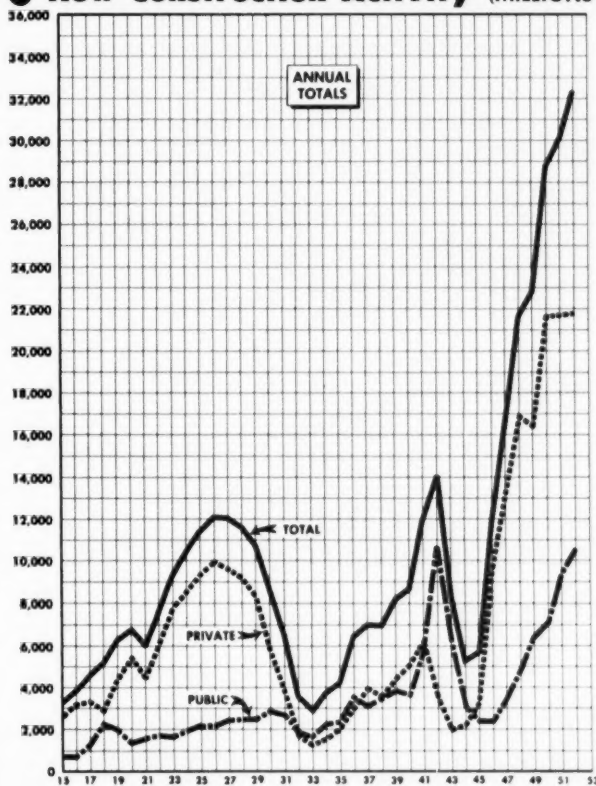
● **TOTAL Construction compared with Gross National Product**
(BILLIONS OF DOLLARS)



● **NEW Construction Compared with Gross National Product***
(BILLIONS OF DOLLARS)



● **New Construction Activity** (MILLIONS OF DOLLARS)



No guesswork in Minnesota

In Minnesota . . . where normal annual temperatures often range from nearly 100 degrees to a rugged 20 below . . . construction men have discovered how *air entrainment* helps to produce concrete that resists the deteriorating effects of extreme and highly variable temperatures.

But they also know that *guesswork* doesn't go when you're mixing *air-entrained concrete*! That's why the State of Minnesota specifies that on Minnesota highways . . . as on so many other construction jobs . . . it's wiser to follow the "prescription" technique.

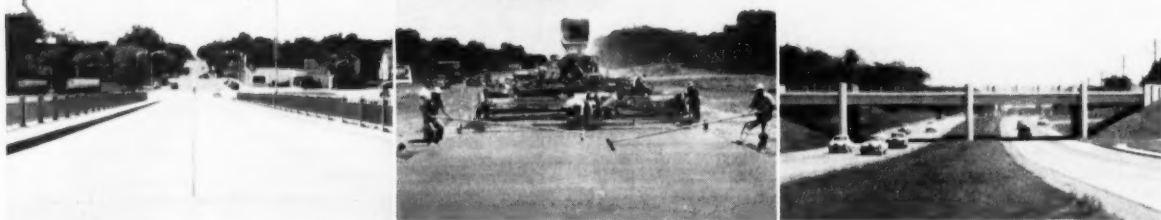
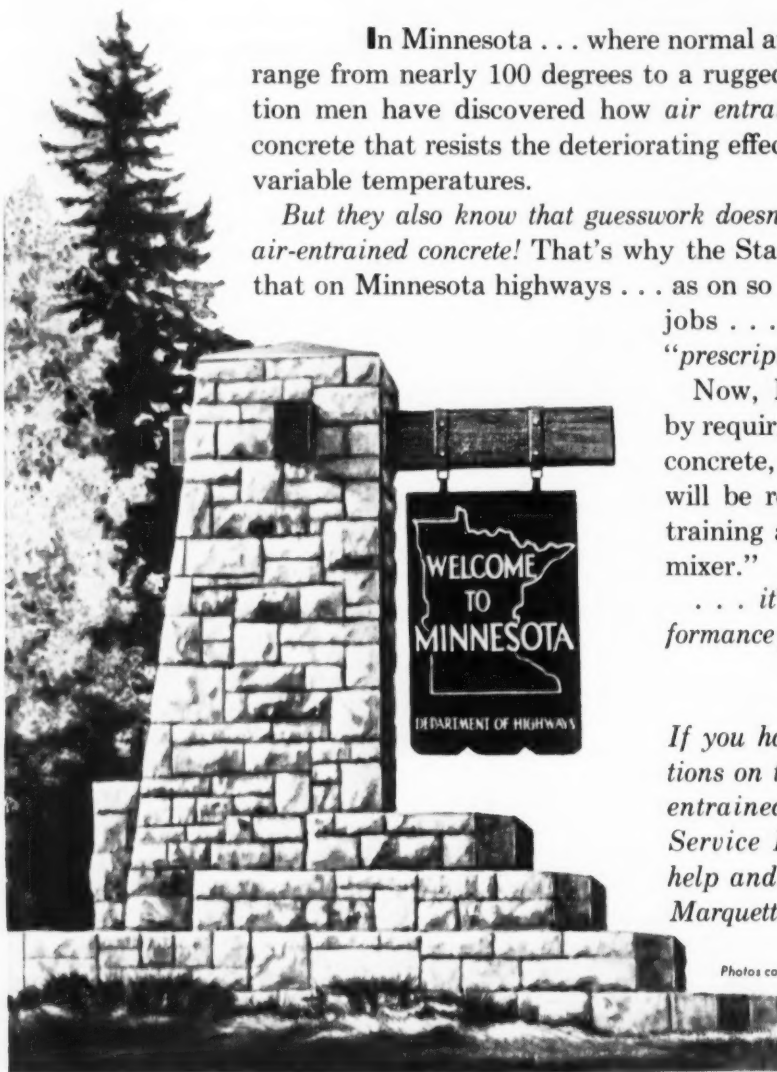
Now, Minnesota makes *sure*—by requiring: "... for air-entrained concrete, normal Portland cement will be required with the air entraining agent to be added at the mixer."

. . . it's *sure, simple*—and *performance* proves it's well worth while!

★ ★ ★

If you have any problems or questions on the use and mixing of *air-entrained concrete*, the *Marquette Service Engineer* will be glad to help and advise you—contact any *Marquette office*.

Photos courtesy Minnesota Department of Highways.



Marquette Cement

MANUFACTURING COMPANY

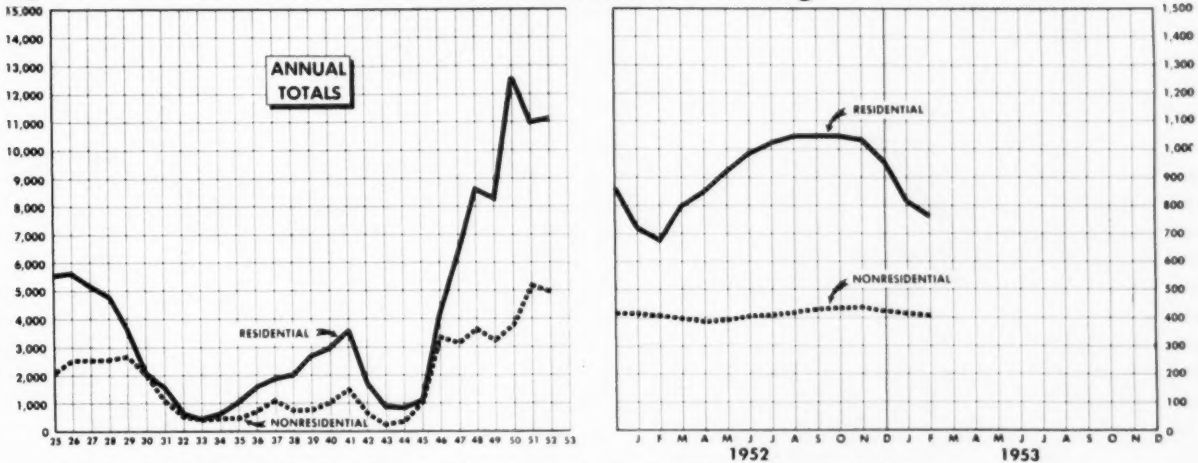
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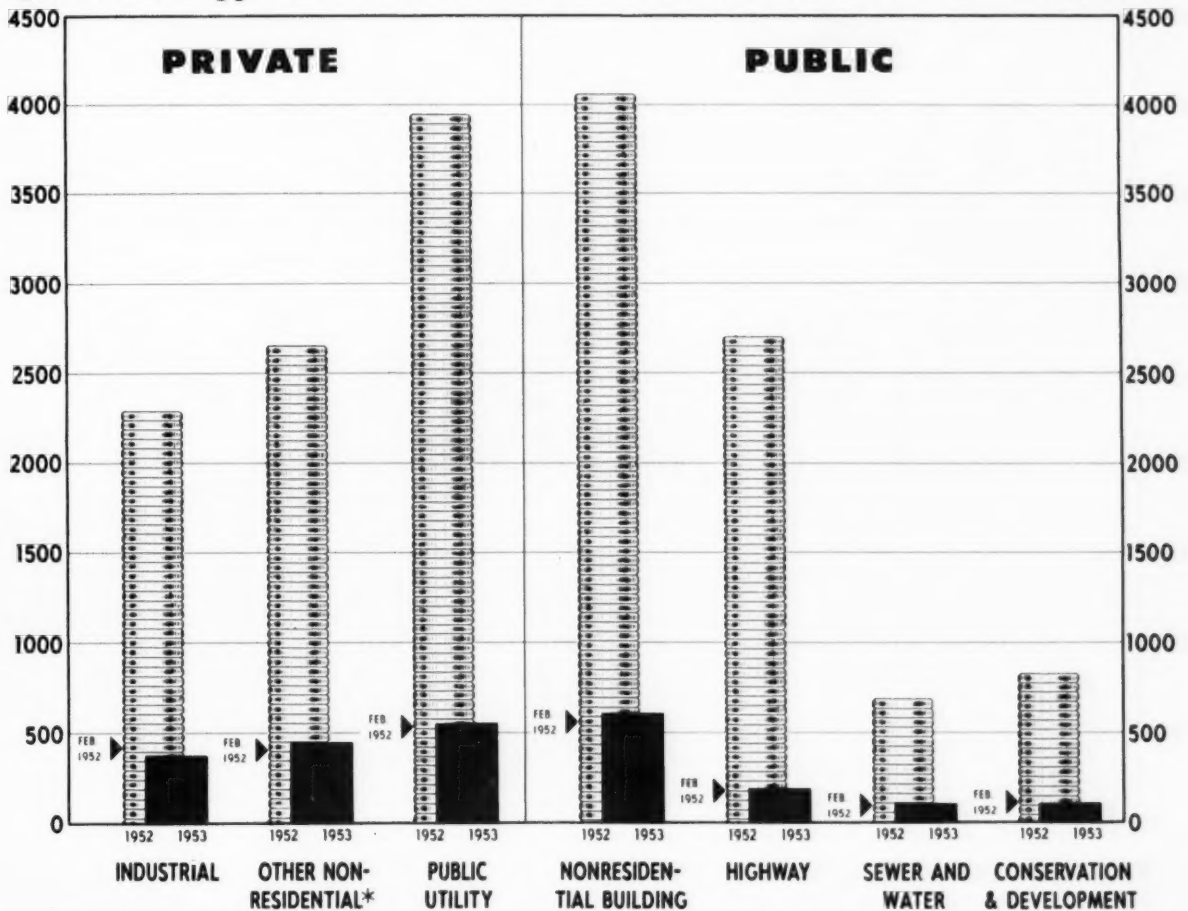
NEW CONSTRUCTION ACTIVITY

● Private Residential and Nonresidential Building * (MILLIONS OF DOLLARS)

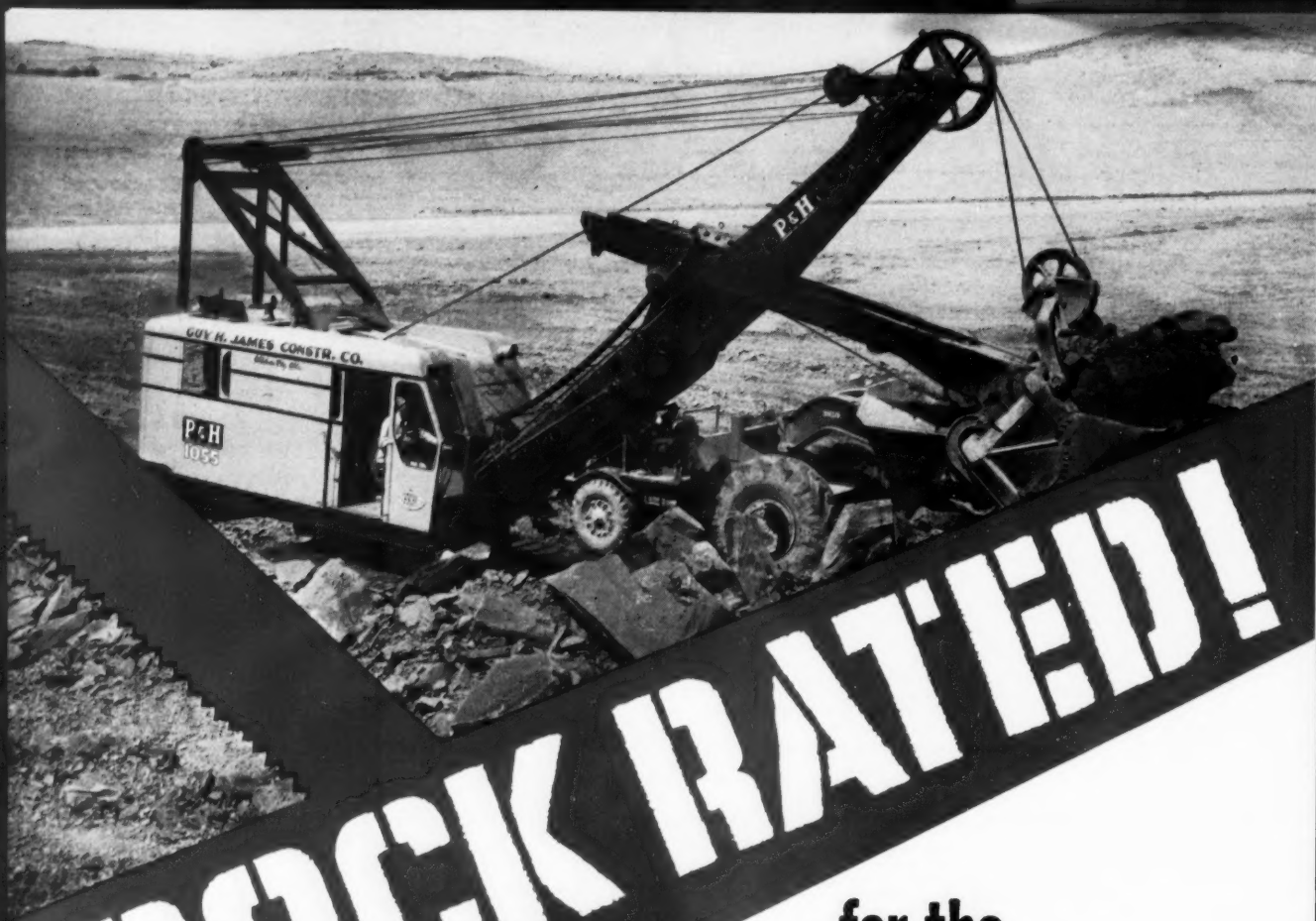


* Residential excludes farm; Nonresidential includes industrial, commercial, institutional, and social and recreational building, but excludes public utility building.

● Selected Types: (CUMULATIVE, MILLIONS OF DOLLARS) 1952, 1953 VOLUME THROUGH FEBRUARY



* Includes commercial, institutional, and social and recreational building.



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P&H *greater speed* comes from Magnetorque® Electric Swing — actually 15% to 25% faster than any other machine of its size to give you greater production, lower tonnage costs. And it's goodbye to maintenance and replacement problems for years to come . . .

Magnetorque lasts the life of your P&H. But to get fully acquainted with this outstanding producer, let us direct you to a 955-A in action.

If you want bigger capacity, same advanced design, ask about the P&H 1055-A (3½ yd.)

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beyond the "clutches
of wear"

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PRE-FABRICATED HOMES



ELECTRIC HOISTS



SOIL STABILIZERS



WELDING EQUIPMENT



OVERHEAD CRANES

For Moderate Income Families in Large Cities

(Formerly referred to as the "Cost of Living Index," compiled by the Bureau of Labor Statistics)

The Consumer Price Index, formerly calculated on the base 1935-39=100, was converted beginning January to the new base 1947-49=100 in compliance with recommendations of the Bureau of the Budget. All figures from now on will be calculated on the new base period.

A portion of this index below indicates the average changes in retail prices of selected goods, rents and services bought by the average family of moderate income from November 15, 1950 to January 15, 1953.

They are represented here for use by employers who may wish to take these cost of living data into consideration when contemplating adjustments of wages based on increased living costs.

Aside from the change of the base years, the revised index includes prices of about 300 items, compared to some 200 for the previous index. For the first time the index includes direct measures of home ownership and maintenance. The "weight" assigned to items is now based on

facts concerning family expenditures of wage earners and clerical workers found in a survey on consumer expenditures conducted by the bureau.

Another change is that the list of cities in which prices for the new national index are being collected is representative of all urban places, ranging in size from New York City to towns of 2,500 population.

However, the list of individual cities for which new indexes are being published has been reduced from 34 to 20. The first five cities in the table below are to be checked and reported on monthly. The other 15 cities will be surveyed and their indexes published quarterly.

The revised index looks quite different from the old index, in that its figures are much lower. When converted, the revised index for December 1952, for example, is 114.1. Using the 1935-39 base of the older index the December figure is 191.0.

	1950		1951	1951		1952	1952		1953
	NOV.	DEC.	JAN.	NOV.	DEC.	JAN.	NOV.	DEC.	JAN.
Average.....	105.5	106.9	108.6	112.8	113.1	113.1	114.3	114.1	113.9
New York, N. Y.....	104.7	106.0	107.4	111.2	111.2	111.3	112.9	112.0	111.7
Chicago, Ill.....	106.0	107.7	108.9	114.1	114.0	114.0	115.1	114.6	114.2
Los Angeles, Calif.....	104.5	106.8	108.5	113.5	113.9	113.7	115.1	115.3	115.4
Philadelphia, Pa.....	104.6	107.0	108.8	113.6	113.7	113.5	114.7	114.7	114.3
Detroit, Mich.....	106.5	107.4	109.1	113.4	113.7	113.7	115.3	116.0	115.7
Atlanta, Ga.....	106.5	.....	.....	115.6	.....	.....	117.1	.....	.....
Baltimore, Md.....	.....	106.5	.....	.....	112.4	.....	.....	114.4	.....
Boston, Mass.....	105.4	106.3	107.8	111.8	112.4	111.8	112.7	112.4	112.1
Cincinnati, Ohio.....	104.6	105.9	108.3	111.5	111.6	111.8	112.5	112.5	.....
Cleveland, Ohio.....	105.4	.....	.....	112.7	.....	.....	113.6	.....	.....
Houston, Texas.....	108.1	109.9	112.3	115.2	115.8	115.4	116.0	116.7	.....
Kansas City, Mo.....	.....	.....	109.1	.....	.....	113.2	.....	.....	114.3
Minneapolis, Minn.....	.....	107.3	.....	.....	113.3	.....	.....	114.6	114.4
Pittsburgh, Pa.....	105.1	106.0	107.9	112.9	112.8	113.1	113.5	113.4	112.6
Portland, Ore.....	.....	.....	109.9	.....	.....	114.9	.....	.....	114.6
St. Louis, Mo.....	.....	107.1	.....	.....	114.0	.....	.....	114.9	.....
San Francisco, Calif.....	.....	106.2	.....	.....	113.0	.....	.....	115.6	.....
Scranton, Pa.....	104.2	.....	.....	111.6	.....	.....	113.1	.....	.....
Seattle, Wash.....	107.1	.....	.....	113.9	.....	.....	115.6	.....	.....
Washington, D. C.....	105.7	.....	.....	112.5	.....	.....	113.8	.....	.....

Caterpillar Diesel armada pushes through new Pensacola jet base



▲ THIS NO. 12 Motor Grader is leveling one of the long jet runways at the Forrest Sherman base.

▼ A CAT D13000 Diesel Engine powers a Bucyrus-Erie dragline, moving shell from stock pile to crusher.



Building the roads and runways for the new Forrest Sherman jet base at Pensacola, Florida, is pretty much a Caterpillar show. Smith Engineering & Construction Co., of Pensacola, uses about 75 of the big yellow machines, including all types of equipment.

The land on which the installation is being built was an Army fort during the last war, and will now become part of the big Pensacola Naval Air Station. The runways are 70% crushed shell mixed with 30% sand and spread 17 inches deep. This is compacted to a 12-inch finished base.

Earth taken from the cut for the runways is used as fill for a new entrance road to the field. 180,000 cubic yards will be moved on the road-building job, and it is being done by fast Cat DW21 Tractors and No. 21 Scrapers, hauling loads up to 20 heaped yards.

A Woods mixer, pulled by a D8 Tractor, is used for rapid mixing of the runway material. And Cat No. 12 Motor Graders prepare the ground and level the mix.

Mr. A. W. Gordon, Superintendent, says: "At one time we had about 50 machines of other makes. We've gradually sold them out and standardized on Caterpillar. I'm partial to them, having worked one of the first tractors sold, back in 1928. Some of our

present Cat equipment is more than 10 years old and still running strong."

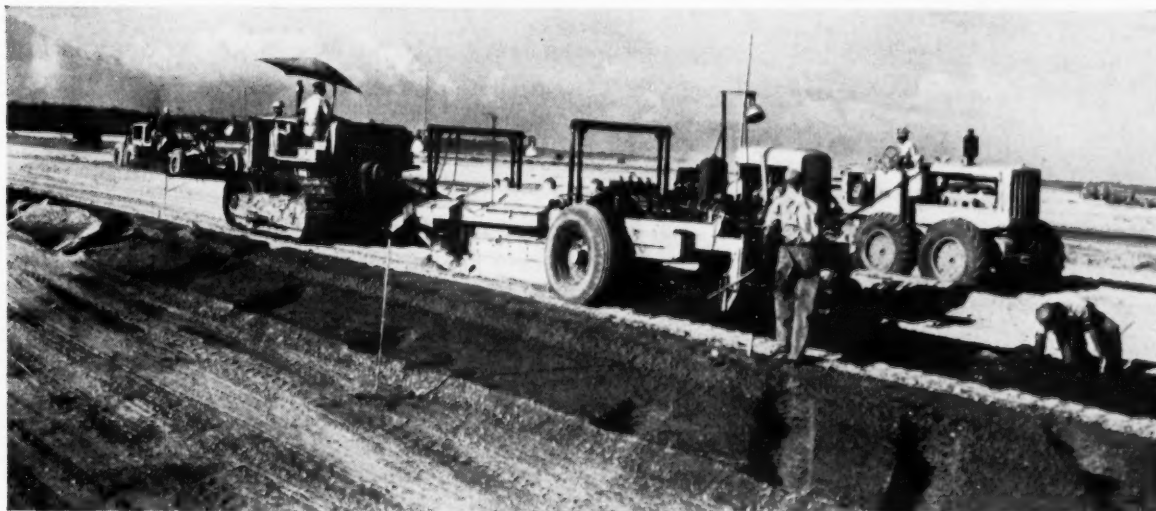
Standardizing on Caterpillar machines is sound practice. It simplifies the problem of operator training, allows quick repairs with interchangeable parts, and places undivided responsibility on one manufacturer and one dealer.

Your Caterpillar Dealer has the right equipment for your job, and he'll back its rugged stamina and long work life with reliable service and genuine Caterpillar parts. He's as close as your phone. Call him today.



▲ ROLLING at 20 mph., a Cat DW21-Scraper unit hauls big loads fast for building an entrance road.

▼ A CATERPILLAR D8 Tractor pulls this Woods mixer, laying crushed shell and sand for a runway.



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Through every stage of your jobs, Patent Scaffolding Co. can supply the *right* type of modern scaffold. You can *buy*—or *rent*—exactly what you need for any job, large or small, from one source. Complete stocks throughout the country mean quick deliveries and no job delays!

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Sidelights for Contractors

By John C. Hayes, Counsel

Public Contracts

Arbitration Clauses.—The Court of Claims has upheld the validity of a contract's arbitration clause which provided that if the parties fail to agree upon the adjustment in compensation due the contractor as a result of a change in the work, the dispute should be settled by arbitration. The court disagreed with the contention that the government has consented to have decisions made against it only by the Court of Claims.

However, in another case the Comptroller General ruled that an arbitration clause in a government contract was invalid where the claim involved was for breach of contract and unliquidated. The executive branch of the government, said the Comptroller General, has no general or inherent power to submit to arbitration, in the absence of specific authorization by Congress in certain well-defined cases.

Liability of Surety.—Under a decision by a Circuit Court, a surety on the payment bond of a defaulting government subcontractor is not liable to the government for the income taxes withheld by the subcontractor from its employees but not paid to the government. Also the court held that the surety, after payment of material, supply, and labor claims, had a priority to repayment from the fund due the subcontractor by the contractor, superior to the government's lien against the subcontractor for the unpaid withholding taxes. The subcontractor in applying for the bond had assigned to the surety as collateral all right, title and interest it had under the subcontract. (One judge dissented.)

In a different case involving a performance surety, another Circuit Court held that the government's failure to withhold liquidated delay damages from progress payments to a contractor, who subsequently was declared bankrupt after final payment, did not relieve the surety of liability for payment of such damages, although the surety was unable to recover from the bankrupt estate. The payments to the contractor had been made to supply funds for the construction, the Court thought, and there was no show-

ing that the surety had been prejudiced thereby.

Taxes

Pension Plans.—Under one of the early bills introduced in the House, H. R. 10, voluntary pension arrangements would be available to partners, sole proprietors, and other individuals except employees already eligible for an approved pension or profit sharing plan. Payments into such funds each year would be deductible from taxable income up to 10% of the taxpayer's earned income, or \$7,500, whichever was less. Retirement payments therefrom would be taxable to the individual only as received; with the further advantage that a lump sum payment of total benefits would be taxed as a long-term capital gain.

Tax Rulings.—The Bureau of Internal Revenue has published a statement of its procedure regarding requests for rulings or closing agreements on specific matters. Rulings will be made on prospective transactions where the law or regulations provide for a determination of the effect of a proposed transaction for tax purposes; and in other instances where the bureau has discretionary authority, if issuance of a ruling seems justified in the light of all relevant circumstances. Ordinarily rulings will not be issued where the determination is primarily one of fact. The Washington headquarters office of the bureau will rule on completed transactions affecting a return to be filed, unless the question is one unsuitable for issuance of a headquarters ruling.

Transfers to Controlled Corporations.—Where an individual who had been in the construction business and who operated rental properties and farm lands, sold certain rental properties and royalty interests to two newly formed corporations in which he was the sole stockholder, the Tax Court decided that the income from the transferred properties was properly taxed to the corporations. While recognizing that transfers between a stockholder and his controlled corporations are subject to strict scrutiny to pre-

vent tax avoidance, the court felt that the transfers here were bona fide and that the corporations were organized for business purposes and actually were engaged in business.

Sale of Equipment.—The Tax Court has held that a net operating loss of a partnership was not affected either by a capital loss on a sale of securities or by a capital gain on the sale of equipment. On the facts before it, the court disagreed with the contention by the Commissioner of Internal Revenue that the sale of the equipment was a business gain that should be applied in reduction of the net operating loss.

Disallowance of Salary.—A purported salary of \$2,000 per month payable for three years by a partnership to a retiring partner was disallowed by the Tax Court as a deductible business expense, since it appeared that the amounts paid were not for services rendered but were actually to acquire the interest of the retiring partner in accordance with an agreement to pay \$72,000 for his interest.

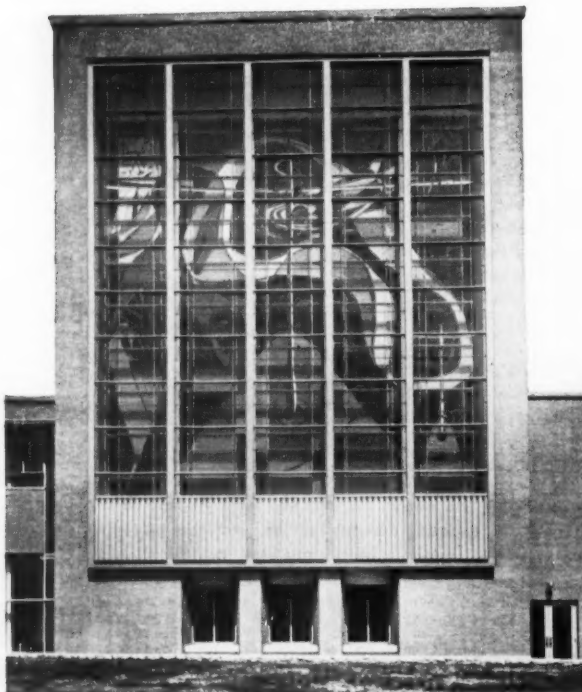
Standard Deduction.—The income tax regulations have been amended to conform to Section 308 of the Revenue Act of 1951. Thereunder, with respect to taxable years beginning after December 31, 1949, a change of election to take, or not to take, the standard deduction for any taxable year, may be made by a taxpayer before or after the time prescribed for filing the return for the taxable year.

Retained Percentage Payment.—In accord with a Tax Court decision reported in January's *Sidelights*, a District Court ruled that a contractor need not include in his taxable income for the year of completion of a government construction job the percentage of the total fee withheld from him until after audit and approval by government officials in the following year. Under the terms of the contract, the contractor's right to receive the retained portion of the fee did not become absolute and fixed, and thus did not accrue, until the subsequent year.

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Ceco designed standard window sections to fit between the channels. A mullion was provided consisting of $\frac{1}{4}$ " flat plate with Ceco head and sill sections of intermediate design. Ceco standard intermediate "T" muntins served as comes for the leaded glass.

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Freedom from Controls

THE MANNER in which the new Administration moved toward the dismantling of the government's vast control system over the nation's economy during the past month gave assurance that it has no thought of continuing artificial control methods beyond their useful life.

The government recognized that it is sound procedure to remove the controls when they are no longer needed, or when they prove inoperable.

In his order suspending wage and salary controls, President Eisenhower listed among his considerations that:

"... the production of materials and services and the demand therefor in the national economy are approaching a practicable balance; and ... the earliest possible return to freedom of collective bargaining in the determination of wages will serve to strengthen the national economy and thereby the national security ..."

Regarding price regulation, the President said: "These controls have not been effective in protecting the family budget against high prices."

As to allocation of materials, he said: "I believe that material and product controls should be ended, except with respect to defense priorities and scarce and critical items essential for our defense. I shall recommend to the Congress that legislation be enacted to continue authority for such remaining controls of this type as will be necessary after expiration of the existing statute on June 30, 1953."

The President said he has no intention of asking for standby controls, but that if prices soar generally as a result of removing them, he will ask Congress for whatever is necessary for the cure, but would be disappointed greatly to have to do so. He counseled American business to not take advantage of the consumer.

For the construction industry last month's actions had the welcome effect of freeing civilian construction projects generally from government regulation which had lasted 28 months in varying degree.

The Associated General Contractors of America stated: "Now owners, with the advice of their architects, engineers and general contractors, can determine whether or not they can secure the materials necessary for their projects and can proceed without the necessity of government permission.

"This will likewise stimulate the advance planning of both public and private construction projects to be undertaken at times the governmental bodies or owners consider most appropriate, without recourse to the federal government.

"Most construction materials have become readily available and others are expected to become so in the near future, so that the necessity for controls has passed. It is sound government procedure to remove the controls when they are no longer needed. The NPA actions are welcomed because they permit the industry greater freedom in executing the projects needed by governmental bodies and private institutions and citizens."

Enforcement of wage stabilization in recent months had become almost impossible with reduced appropriations, and members of trade associations cooperating with the government were the only employers fully informed on wage stabilization actions and trying to comply with them.

Wage controls also had the undesirable effect of interfering with employer-employee relationships, and in the final analysis, because of the manner in which they were being administered, became in effect tools for stimulating inflation.

The A.G.C.'s policy has been that so long as there are federal controls the association should cooperate with the appropriate agencies so that members could be accurately informed and have their cases handled properly. This the association has done in connection with all controls pertinent to the industry, to the extent that A.G.C. chapters in many instances became the most complete source of information locally on mobilization developments affecting the construction industry.

In the administration of wage controls the A.G.C. has cooperated with the Construction Industry Stabilization Commission in order that it could keep its membership informed of commission actions and policies, and so that persons familiar with the peculiar problems of the industry could have a voice in the administration of controls.

Price regulations governing construction services had long been considered ineffective and unnecessary, and the removal of this control eliminates a burden of red tape.

The inexorable law of competition with contracts awarded to the lowest responsible bidder has always kept the construction industry the prime example of the strictest kind of self-regulated pricing in action, assuring the public of maximum returns for its dollar.

The A.G.C. also cooperated with the Office of Price Stabilization, as did some of its members in advisory capacity, and helped tailor a special price regulation for the industry to relieve it of additional burdens imposed by the general regulations.

The association has kept in constant contact with the agencies administering materials allocations and direct controls on construction since their inception. The A.G.C. has offered its advice, made criticisms and recommendations, and tendered its cooperation wherever appropriate, and its members have served on advisory committees.

For more than two years the association has been devoting the major part of its energies toward facing and surmounting rapidly developing emergencies arising from governmental controls which vitally affected the industry's operations both directly and indirectly.

General contractors, meeting at the 34th annual convention of the A.G.C. in Miami, Florida, March 23-26, will have the opportunity to resume long-range planning for the future in a period when the construction industry can manage its affairs relatively unhampered by governmental intervention.



Telsmith Scalper and 13-B Gyratory Crusher

Telsmith Gyrasphere Crusher

Telsmith Vibro-King Sand Screen,
Telsmith Super-Scrubber, Telsmith Sand Classifier

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- 4' x 12' Triple Deck Vibro-King Coarse Aggregate Sizing Screen
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» **LAST MONTH** the government began the systematic dismantling of its vast control system over the national economy which had been initiated principally as the result of the Korean invasion in 1950. By the end of the month, most major decontrol actions had been accomplished.

The transition began with a Feb. 6th announcement by President Eisenhower of "two major actions toward eliminating in an orderly fashion the price and wage controls under which the American economy has been required to operate for the past two years." These were:

- Immediate suspension of all wage and salary regulations and orders issued by or administered by the Wage Stabilization Board (or Wage Sta-

Eisenhower Deals Fatal Blow To Maze of Federal Controls

- Wage and Price Regulations Finally Suspended
- Controlled Materials Plan to Lapse in June

bilization Committee, which had been functioning in place of the board), Salary Stabilization Board (or Office of Salary Stabilization) and the Railroad and Airline Wage Board, with provision for continued enforcement of penalties for past violations of these orders.

- Removal of "a wide and varied list of consumer goods" from price controls which the President said "have not been effective in protecting the family budget against high prices." He said, "This is the first of a series of orders under which all prices will be decontrolled."

Agencies Follow-up Action

This was followed in swift succession by orders from the various agencies administering controls which by the end of the month had decontrolled prices of most products, with the major exception of steel, opened the Controlled Materials Plan, and removed most controls over construction operations.

Early this month the only items of direct interest that remained under price control were steel and building products incorporating metals. The decision to decontrol copper and aluminum seemed to make early decontrol of steel imminent, and there was little doubt that all price controls would be removed, or definitely scheduled to be removed, sometime this month.

- On Feb. 9 the Office of Defense Mobilization began moving toward orderly termination of wage, salary and price controls, including liquidation of the agencies administering those programs.

- On Feb. 13, Arthur S. Flemming, acting director of the Office of Defense Mobilization, modified the Controlled Materials Plan so that producers of the three critical metals—steel, copper and aluminum—could immediately, "after they have honored CMP tickets, use additional space in their plants for any customer without further reference to the government." This "opened" the Controlled Materials Plan, eliminating the issuance of any more

CMP rated tickets on which all users of the critical metals had been required to depend for their requirements.

Allotments Valid Till June 30

At the same time, "to permit an orderly withdrawal from CMP," ODM announced that all controlled material allotments for the second quarter would remain valid through June 30. However, Mr. Flemming announced that studies were being made regarding materials control that would be required subsequently to assure an adequate flow of the critical materials for defense activities.

- On the same day the Office of Price Stabilization removed Ceiling Price Regulation 93 controlling construction services and CPR 30 governing rentals of machinery and equipment. The agency stated, however, that decontrolled businesses "need not make or keep records on future transactions, but must keep available for inspection whatever records were required by the regulations under which they have been operating."

Removal of CPR 93 freed general contractors from considerable red tape in meeting requirements of filling out forms, etc.

- In another price decontrol action Feb. 18, OPS removed regulations governing the sale of most new and used construction machinery and related equipment; certain other machinery and equipment; lumber, wood and related services; coal and other solid fuels; transportation and related services; nonmetallic building materials (cement, structural glass, masonry, roofing and insulated products, etc.); and others.

No More CMP Tickets Issued

Moving to implement the ODM order for dismantling the Controlled Materials Plan, the National Production Authority on Feb. 13 notified all producers of controlled materials that CMP would carry through until June 30, that open-ending would be made effective immediately, and that no

(Continued on next page)

Administration's Goal Achieved

The government's decontrol actions are being directed toward objectives outlined in President Eisenhower's State of the Union message of Feb. 2 when he said he would not ask for standby controls, but:

"I believe that material and product controls should be ended, except with respect to defense priorities and scarce and critical items essential for our defense. I shall recommend to the Congress that legislation be enacted to continue authority for such remaining controls of this type as will be necessary after expiration of the existing statute on June 30, 1953."

The Senate Banking and Currency Committee this month began hearings on standby controls legislation. Chairman Homer E. Capehart (R-Ind.) has introduced two alternate measures. One would provide for overall standby control authority with a small organization that could be expanded rapidly, and the other would confer authority on the President to invoke a 90-day freeze on wages, prices or rents while Congress considered permanent controls.

Substantial opposition to any controls has been expressed by other Congressmen, including Senate Republican Leader Taft and Housing Banking Committee Chairman Jesse P. Wolcott (R-Mich.). President Eisenhower said he would ask for new controls immediately if deemed necessary in the future, but that he would be "disappointed" to have to do so.

A.G.C. Hails End of Most Construction Curbs

• Relieving Industry of "Red Tape" Burden Will Aid Planning

» THE ACTION by the National Production Authority to free civilian construction projects generally from the government regulation they had been governed by since October of 1950 was welcomed by The Associated General Contractors of America.

In a statement Feb. 21, Managing Director H. E. Foreman said:

"The practical effect of Direction 10 to CMP Regulation 6 is that no

more applications need be made to NPA for authority to commence or continue civilian construction projects of all kinds. This relieves the industry of a burden of red tape.

Materials Market Open Now

"The practical effect of Direction 20 to CMP Regulation 1 is to permit sellers to accept orders for controlled materials after the appropriate time

has expired for honoring rated orders. This means that there is an open market for the amounts of controlled materials not covered by rated orders.

"Now owners, with the advice of their architects, engineers and general contractors, can determine whether or not they can secure the materials necessary for their projects and can proceed without the necessity of government permission.

"This will likewise stimulate the advance planning of both public and private construction projects to be undertaken at times the governmental bodies or owners consider most appropriate, without recourse to the federal government."

ODM Wants Safeguards after June 30

• Electric Power Projects to Keep Materials Priorities

» ODM Acting Director Flemming announced late last month that authority will be sought to distribute after June 30 only scarce and critical items essential to national defense and that advance allotments already made under CMP for delivery after that date are being re-examined to see whether any can be cancelled in the next few weeks.

In response to questions regarding plans after June 30, he said:

"The government does not intend

to continue to control the distribution of steel, copper, and aluminum in the civilian economy after June 30, 1953, under the Controlled Materials Plan. Thereafter, if the necessary statutory authority is provided, materials controls will be used vigorously to assure completion of the military build-up, but general distribution will be directed only of scarce and critical items essential to the national defense.

"Advance allotments of steel, copper and aluminum under the Controlled Materials Plan for delivery after June 30, 1953, are being re-examined and all such allotments which do not meet the foregoing requirements will be cancelled within the next few weeks. Until cancelled, all allotments continue in full force and effect."

Earlier in the month, 50 electric power projects connected with needs of Atomic Energy Commission plants were granted top priorities to procure controlled materials by using the AEC identification "E-5" instead of the defense electric power symbol "H-3."

The action was taken "to minimize further delays in the electric power program due to inadequate deliveries of critical materials," the Defense Electric Power Administration announced. DEPA may issue the new symbols, and the National Production Authority is authorized to direct mills to produce needed materials or equipment.

The question of priority assistance for electric power projects after CMP dies on June 30 is under consideration by the defense agencies.

NPA has estimated that material requirements for the power program will be met beginning April 1.

Soundness of Action Acclaimed

"Most construction materials have become readily available and others are expected to become so in the near future, so that the necessity for controls has passed. It is sound government procedure to remove the controls when they are no longer needed. The NPA actions are welcomed because they permit the industry greater freedom in executing the projects needed by governmental bodies and private institutions and citizens."

Specifically, Direction 10 to CMP Reg. 6 (construction) stated in Sec. 3: "If any person obtains controlled materials required for a construction project by use of unrated orders placed pursuant to provisions of Direction 20 to CMP Reg. 1, or to this direction, he may commence or continue construction of his construction project without an authorized construction schedule."

Procedure Till June 30

Until June 30, when CMP will end, producers will be required to honor CMP tickets which are presented. But after expiration of the lead time (45 days before delivery) for orders they may use additional space in their plants for customers "without further reference to the government."

Rated orders will continue to be given to direct military and atomic energy projects.

Except in rare cases, NPA does not expect to issue additional CMP tickets for nonmilitary construction projects, and intends to return most applications on hand. Essentially there are no regulations now on the start of any kind of construction project, and all projects can compete in the open market for the controlled materials not covered by rated orders.

(Continued from page 21)

more CMP tickets would be issued to take up any space reservations. "Controlled material producers must honor all outstanding CMP tickets including those not yet placed before unrated orders can be accepted," the agency stated.

The action decontrolling construction came with NPA orders of Feb. 16 to permit producers to accept "unrated" orders for controlled materials after the beginning of lead time, calling for delivery after February 1953, and establishing rules under which controlled materials producers and distributors may ship materials against orders not covered by an allotment number.

Under a revision of CMP Regulation 6, governing construction, owners and contractors were given a procedure to obtain controlled materials without an authorized order after beginning of lead time for deliveries after February 1953, and were permitted to commence or continue construction without an authorized construction schedule.

» THE ADMINISTRATION began an urgent effort Feb. 3 to pare down budget estimates for fiscal year 1954 to eliminate as near as possible the indicated \$10 billion deficit, by calling on all departments and agencies to review their expenditure programs and come up with revised estimates by March 2. The deadline was not met by some of the larger agencies, but it still was planned to start appropriation requests to Congress in April.

The order given to departments by Budget Director Joseph M. Dodge was directed not only at future programs, but also was a general economy order pertaining to expenditures in existing program. He stated, with the approval of President Eisenhower:

"It is clear that the budget will not be brought under control without action to reduce budgetary obligational authority, reduce the level of expenditures, critically examine existing programs, restrain commitments for new programs, and generally drive for greater efficiency and reduced costs."

Construction Affected

The part of the over-all policy relating to construction was announced as: "It is the policy to proceed only

Budget Cuts to Eliminate Deficit Begun

• Government to Proceed With Only "Essential" Construction

with projects which are clearly essential, and on such projects to employ the strictest standards of economy.

"All proposed or authorized construction projects on which work has not yet begun are to be reviewed and construction initiated only on those projects which meet these criteria.

"All going construction projects are to be reviewed according to the same criteria and appropriate action taken, including action to stop the work if this appears advisable."

No Drastic Reduction Seen

It generally was believed that no drastic reduction in proposed federal construction expenditures would result from the action, since projects had been carefully screened in advance, and since most funds in the budget are for continuation of going projects, with only a small portion designated for new programs.

However, if the slow-down policy continues into the spring months when the construction season is in full swing, it could seriously affect some projects. The situation did not appear to be loosening up a month after the order was issued, and the Defense Department on Feb. 26 ordered stoppage of advertisement for bids except for those projects specifically cleared by the Secretary's office.

Defense Construction Policy

Defense Secretary C. E. Wilson took action Feb. 10 pursuant to the Dodge order, making public actions to:

1. "Preclude the award of additional construction contracts subsequent to 7 February 1953 until such time as the specific projects have been reviewed and specific clearance given in each instance."

2. "Each Service will likewise submit to the Director of Installations a resume of construction items which will be less than 20% complete on 10 February 1953 and which in the opinion of the Service Secretaries (Army, Navy, Air Force) are essential to the accomplishment of assigned missions."

The memorandum to Services said information "may be submitted in increments, and insofar as possible, action by this office will be taken to minimize the disruption of orderly contracting procedures."

The military departments, in order to carry out contracting procedures in as orderly a manner as possible, adopted policies to: continue to advertise for bids on schedule and to make awards as soon as the individual projects could be cleared, and not to halt work on projects less than 20% complete until a review disclosed that the project was no longer essential.

Stops Bid Advertisements

However, on Feb. 26 Secretary Wilson sent the following memorandum to the Service secretaries:

"Reference is made to my memorandum of 4 February 1953 requiring review of all construction programs of the Department of Defense.

"In order that the adverse effects upon the construction industry may be held to a minimum and that projects which may subsequently be eliminated by the review will not be placed under advertisement, it is desired that effective 1 March 1953 the advertisement for bids be discontinued except for those projects which have been certified by each Service Secretary in compliance with the referenced memorandum and upon which the approval of this office has been indicated."

Interior Construction Policy

Secretary of Interior Douglas McKay implemented the White House-Budget Bureau directive on Feb. 13 by ordering approval by his office of the award of any contract amounting to more than \$10,000.

The Commissioner of Reclamation has had unlimited authority, and regional directors of the bureau could award contracts up to \$200,000.

For contracts submitted for approval, the secretary said, "complete and detailed justification" must be shown, and in the case of additions to going jobs, "the relation of a new feature to the project itself should be clearly indicated as well as the effect . . . should the work covered by the project be deferred."

By early this month, very few contracts, and most of those of small denomination, had been approved.

Federal-aid highways apparently were not affected by the economy order, but the Bureau of Public Roads is holding up awards on forest roads and other federal projects.

Horner Gives A.G.C. Views

Arthur S. Horner, president of The Associated General Contractors of America, on Feb. 6 announced the reaction of the association's Executive Committee, meeting in Washington, to the policies for review of the federal budget for the fiscal year 1954, announced February 3 by Budget Director Joseph M. Dodge, with respect to construction:

"We believe that it is sound procedure to examine all public works—and other federal—expenditures, and proceed only with projects which are clearly essential, and to employ on them the strictest standards of economy. This will give further assurance to the public that funds for construction projects are expended economically.

"We have confidence that sound engineering judgment will be exercised in the review of going and proposed projects, and that the review will be completed promptly so that there will be no delays in executing needed projects and so that advantage can be taken of the full 1953 construction season."

Industrial Expansion Program Hits Peak

• ODM Reports Mid-Construction Mark Was Reached Last Fall

» THE certificates of necessity program, which has helped spark the greatest industrial expansion the nation has ever known, has now passed its peak, the Office of Defense Mobilization reported last month. The program was initiated in 1950 to give special tax considerations to industries constructing new facilities to bolster the nation's industrial might for defense. By September 30, 1952, \$23 billion worth of work had been approved and of that amount, construction and equipment worth \$12.3 billion had been put in place. The second quarter of last year marked the crest of the vast expansion, ODM re-

ported, and by the end of the 3rd quarter, 55% of the 13,153 projects approved had been completed.

Construction Gets 29% of Money

Construction involved is requiring 29% of the expenditures, while 67% is going for equipment and 4% for land and overhead. Multi-million-dollar projects—electric power plants, railroad extensions, steel works and factories—are major elements in the mass rejuvenation of American industry for national defense.

Although over half of the projects approved as of last September 30 were completed by then, they repre-

sent only 18% of the total dollar volume. The bulk of the program is still under construction. Of the work completed, 55% is in projects initiated by five major industries—railroads, petroleum refining, electric light and power, non-electrical machinery and steel works.

Many Completions in 1953

Some 895 projects approved by September 30 had not yet begun construction. Their value was estimated at over \$2.2 billion. Also, since that date applications have been approved for another \$2 billion worth of work. Officials estimate that the bulk of completion will come this year (when expansion valued at \$10.5 billion may be completed) and in 1954.

Some indication of the types of construction ahead is apparent in a review of the projects not yet begun as of last September. About 225 of them were concentrated in six industries—railroads, petroleum refining, petroleum pipelines, blast furnaces and industrial organic and inorganic chemicals.

Of the projects being assisted under the tax amortization program as of last September 30, 2,390 were transportation, storage and public utility projects, representing 35% of the total expansion. No attempt was made to determine the geographic distribution of these, but the remaining projects, when analyzed, proved to be considerably concentrated. Nearly 60% were being undertaken in California, Illinois, Michigan, Minnesota, Ohio, Pennsylvania and Texas.

Industrial Growth Sets Record

To date, the certificates of necessity program has now reached a total dollar volume of well over \$25 billion and it has been estimated that it will reach \$30 billion before discontinued. Thus, it becomes a substantial contribution to the industrial growth of the nation which is about \$27 billion annually in plant construction and equipment.

World War II expansion was not nearly as great and totaled about \$25 billion for the period 1940-44.

Under the plan approved by Congress in 1950, certificates of necessity are given to industries desiring to expand their facilities and they are thereby entitled to amortize a portion of the investment over a period of five years rather than the usual 25 years.

President Fills More Top Agency Posts

• Cole Slated for HHFA, Aandahl Goes to Interior Department

» PRESIDENT Eisenhower continued last month to fill top posts in the Department of Interior, the Housing and Home Finance Administration and the Federal Civil Defense Administration.

His appointment of Ex-Congressman Albert M. Cole of Kansas to head HHFA drew expressions of fear for the future of public housing from many sources. Mr. Cole has a record of strong opposition to federal housing programs. He will be in a key spot to recommend cut-backs in the number of public housing units to be built and to reduce the amount of subsidies on housing paid out by the federal government.

The Senate confirmed two other Presidential appointees, Fred C. Aandahl, former governor of North Dakota, and Orme Lewis, Phoenix lawyer, to be assistant secretaries of the Department of Interior. Both men will be influential in construction policies of the department if Secretary Douglas McKay yields to them the substantial responsibility he has said he will.

Mr. Aandahl, who will be the assistant secretary for water and power, will have jurisdiction over the Bureau of Reclamation and the Southeastern, the Southwestern and the Bonneville power administrations. More than \$150 million for construction under these four agencies was requested in

the Truman budget for fiscal 1954.

Mr. Lewis, a former director of the Arizona Public Services Co., will be in charge of the Bureau of Land Management, Fish and Wildlife Service, National Park Service and the Office of Territories.

Full administrative duties of the Department of Interior are to be shouldered by the newly appointed under secretary, Ralph A. Tudor. He is a former San Francisco consulting engineer and former chief engineer of the Bay Toll Crossings Division of the California Public Works Department.

Clarence A. Davis, a lawyer with long experience in public power and reclamation affairs, has been confirmed as new solicitor of the department. Both Davis and Aandahl, under questioning by the Congressional Committee approving their appointments, said they oppose the idea of a federal valley authority in the Missouri Basin.

Former governor of Nebraska, Val Peterson, will be the new administrator of the Federal Civil Defense Administration. He is a former president of the Council of State Governments and chairman of the Governors' Conference.

Major General Samuel D. Sturgis, Jr., has been named to head the Corps of Engineers.

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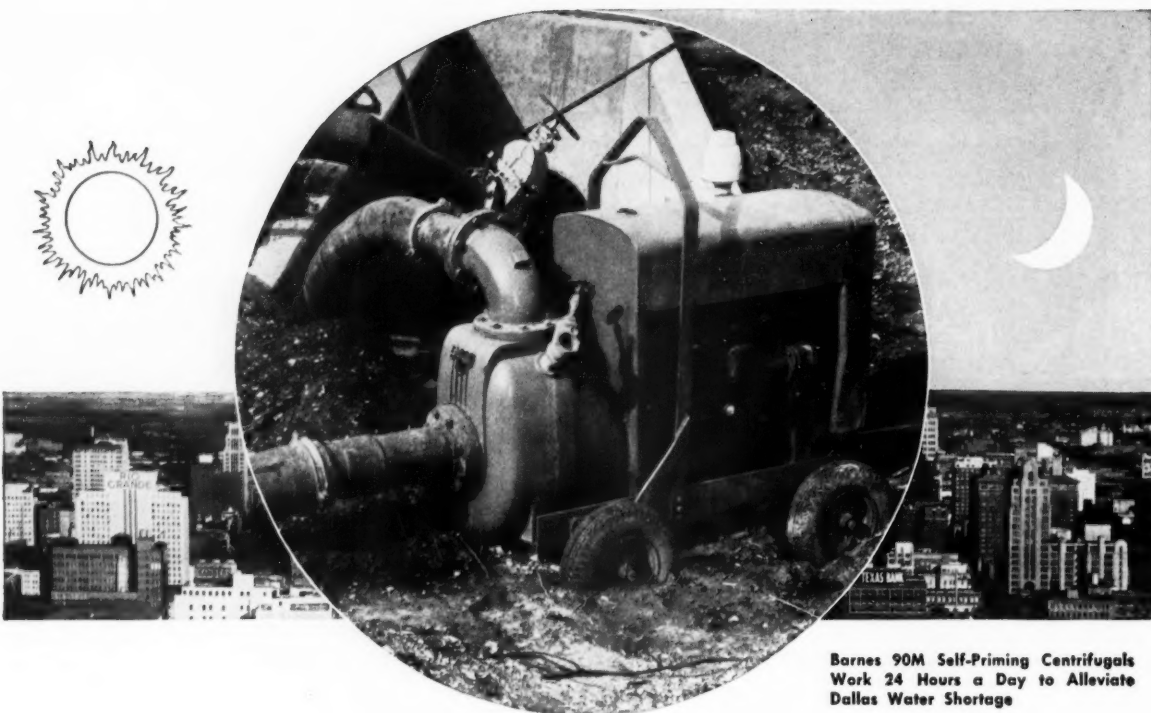
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The Barnes Complete Line of Pumps range in capacities from 480 G.P.H. to 120,000 G.P.H. Pressures up to 600 ft. or 260 P.S.I.

BARNES' BIG SELF-PRIMING CENTRIFUGALS AID DALLAS WATER SHORTAGE

Faced with the most critical water shortage in years, Dallas, Texas, last fall, reached for all available water in the area. One of the sources tapped for this critically needed water was Willow Lake, about fifteen miles from Dallas. Here, two Barnes 90M Self-Priming Centrifugal Pumps worked 24 hours a day — day in and day out — pumping the lake into the Trinity River where it then flowed to the Bockman filtration plant at Dallas.

Performing with their usual high efficiency and expected reliability, these big Barnes Pumps were an important factor in keeping Dallas in water during this trying period.



Whether it's water that is wanted or water that is not wanted, remember a Barnes Pump will move more of it — faster, steadier, and cheaper!

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BUY THE BEST . . . BUY BARNES



» THE SENATE Judiciary Committee last month favorably reported out S. 24 as amended, a bill designed to offset effects of the November 1951 decision of the U. S. Supreme Court in the Wunderlich case, and to provide for judicial review of disputes arising under federal contracts.

However, when the measure came up on the Senate's calendar of non-controversial bills in late February, it was stymied by objections of two Senators who wanted more time to study results of last year's hearings on the bill held by the Judiciary Committee. Bills placed on the Senate's consent calendar generally are passed by voice vote unless an objection is raised by a Senator.

The objections were made by Senator George A. Smathers (D-Fla.) in the name of Senator Lester C. Hunt (D-Wyo.), and Senator John Marshall Butler (R-Md.), and are understood to have been requested by the Department of the Air Force.

To Come Up Again

There was a possibility that the bill might come up again on the calendar late this month, and efforts were being made to clear away any known objections.

S. 24 was introduced by Senator Pat McCarran (D-Nev.), formerly chairman of the Judiciary Committee, for himself and Senators Warren G. Magnuson (D-Wash.) and Dennis Chavez (D-N.Mex.). It was favorably reported by the committee now

Measure for Judicial Review Blocked in Initial Senate Test

- S. 24 Stymied by Air Force Objections
- Judiciary Committee Report Favorable

headed by Senator William Langer (R-N.Dak.).

Identical to S. 2487 which passed the Senate last July but went to the House to late for action by that body, S. 24, as amended, is in line with recommendations of the Associated General Contractors of America. It provides:

"That no provision of any contract entered into by the United States, relating to the finality or conclusiveness, in a dispute involving a question arising under such contract, of any decision of an administrative official, representative, or board, shall be pleaded as limiting judicial review of any such decision to cases in which fraud by such official, representative, or board is alleged; and any such provision shall be void with respect to any such decision which the General Accounting Office or a court, having jurisdiction, finds fraudulent, grossly erroneous, so mistaken as necessarily to imply bad faith, or not supported by reliable, probative, and substantial evidence.

"SEC. 2. No government contract shall contain a provision making final on a question of law the decision of an

administrative official, representative, or board."

Committee Report Quoted

The Judiciary Committee, in recommending passage of the bill, reported, in part:

"This bill, as amended, is identical with a bill of the Eighty-second Congress, which passed the Senate unanimously in the closing days but too late for further action in the other body.

"For a number of years it has been the practice of Government agencies to insert in Government contracts a so-called finality clause, which reads as follows:

Article 15

"Disputes—Except as otherwise specifically provided in this contract, all disputes concerning questions of fact arising under this contract shall be decided by the contracting officer subject to written appeal by the contractor within 30 days to the head of the department concerned or his duly authorized representative, whose decision shall be final and conclusive upon the parties thereto. In the meantime the contractor shall diligently proceed with the work as directed."

"In November of 1951 the Supreme Court decided in the case of *United States v. Wunderlich, et al.*, that the insertion of this clause in the contract foreclosed a judicial review of disputes concerning questions of fact, unless the aggrieved party alleged and proved fraud with respect to the decision of the department head or contracting officer. The Court went on to say: by fraud we mean conscious wrongdoing, an intention to cheat or be dishonest.

"The impact of this decision on the many business firms who, in a condition of expanding production with respect to the defense of the United States, must deal with many of the Government departments in Government construction and defense materials, was one that could only cause great expense to the United States in that the contractors would be forced to puff up their bids so as to be sure of

Congress Begins Cuts in Economy Drive

- Supplemental Appropriation Bill Slashed 60 Per Cent

» CONGRESS has shown its determination to sustain an economy drive by slashing its first big money measure by nearly 60 per cent as the supplemental appropriations bill, originally embodying a request of \$2.3 billion, went to conference this month for adjustment of minor differences.

Bulk of the cut was a \$1.2 billion Defense Department request to meet higher pay, subsistence and other authorized costs. It was understood that the Administration generally went along with the cut in the request which was originally sent up by former President Truman.

However, the department was directed to dip into funds already on hand but not yet earmarked for other

purposes, for the requirements for pay, etc. Therefore it appeared that future actions may be required to hold the economy line.

Few items were contained in the appropriation specifically for construction. Among the items surviving were \$185 million for federal-aid highways, \$18 million for access roads (\$10 million of which is for new work), and \$3.5 million for federal-aid airport contractual obligations.

Over the protest of the House appropriations Committee, a \$20.5 million sum was restored for school aid to communities experiencing large influxes of population due to the government's defense activities.

Extend President's Reorganization Power

» **LEGISLATION** extending the Reorganization Act of 1949 until April 1, 1955, was completed last month with passage by the Senate, permitting President Eisenhower to submit plans for reorganizing the Executive Branch of the government.

Proposals to permit Congressional veto by a simple majority of those voting were defeated. Therefore, any plan submitted by the President would take effect 60 days after submission unless rejected by a difficult-to-reach Constitutional majority in either House—49 votes in the Senate or 218 in the House.

Among possible reorganization issues taking shape are the Veterans Administration, Federal Security

Agency, and conservation programs of the government.

President Eisenhower, after conferences last month with the Secretaries of Interior and Agriculture, the Army Chief of Engineers, Budget Director Dodge, and a delegation of soil conservation proponents seeking more activity in small watersheds, hinted that some announcement may be made on the over-all subject of federal flood control activities this month. Participants in the conference generally were uncommunicative regarding any possible reorganization plans.

Secretary of Interior McKay told newsmen only that he considered it "wasteful" for two departments to be carrying on the same type of work.

DISPUTES (Continued)

sufficient funds to provide for unforeseen contingencies.

"It must also be borne in mind that to the same extent this decision would operate to the disadvantage of an aggrieved contractor, it would also operate to the disadvantage of the Government in those cases, as sometimes happens, when the contracting officer makes a decision detrimental to the Government interest in the claim.

"For these reasons, the Committee on the Judiciary, after extensive hearings held on a similar bill (S. 2487) during the Eighty-second Congress, second session, at which all interested parties, both private and governmental, were heard, recommends favorable consideration of this legislation.

"S. 24 will have the effect of permitting review in the General Accounting Office or a court with respect to any decision of a contracting officer or a head of an agency which is found to be fraudulent, grossly erroneous, so mistaken as necessarily to imply bad faith, or not supported by reliable, probative, and substantial evidence. In other words, in those instances where a contracting officer has made a mistaken decision, either wittingly or unwittingly, it will not be necessary for the aggrieved party to, in effect, charge him with being a fraud or a cheat in order to effect collection of what is rightfully due.

"The committee wishes to point out with respect to the language contained in the bill, 'in the General Accounting Office or a court, having jurisdiction,' that it is not intended to narrow or

restrict or change in any way the present jurisdiction of the General Accounting Office, either in the course of a settlement or upon audit; that the language in question is not intended either to change the jurisdiction of the General Accounting Office or to grant any new jurisdiction, but simply to recognize the jurisdiction which the General Accounting Office already has.

"It should also be pointed out that in speaking of a court 'having jurisdiction' the committee intends to negate both the possibility of a construction which would give basis for a contention that this bill itself was granting a court jurisdiction to review Government contracts; and also any construction that would give a basis for a collateral attack on such contracts in a court not having direct jurisdiction of the contract itself."

Other Bills Introduced

An identical bill was introduced in the House by Congressman Chauncey Reed (R-Ill.), chairman of the House Judiciary Committee. This bill, H. R. 1839, is identical to the bill which was unanimously approved by a subcommittee of the House Judiciary Committee last year.

H. R. 1839 has been referred to the same subcommittee, but no hearings have been scheduled. Members are: Louis E. Graham (R-Pa.), chairman; Miss Ruth Thompson (R-Mich.); Patrick J. Hillings (R-Calif.); Emanuel Celler (D-N.Y.); Francis E. Walter (D-Pa.).

The A.G.C. has actively sought this

Bills to Name Subcontractors

Five bills requiring general contractors to name in their bids on federal construction work the subcontractors and amounts of their bids have been introduced in the Congress. All are somewhat similar, but different in some respects, to S. 2907 which twice failed to pass the Senate last year.

In the House, four bills have been introduced and referred to the House Judiciary Committee: H. R. 515, H. R. 1066, H. R. 1520, and H. R. 1825. Early this month none of them had yet been referred to any subcommittee for study.

In the Senate, S. 848 was introduced jointly by Senators Harley M. Kilgore (D-W.Va.), John Sparkman (D-Ala.), William Langer (R-N.Dak.), William E. Jenner (R-Ind.), Milton R. Young (R-N.Dak.), Warren G. Magnuson (D-Wash.), Henry M. Jackson (D-Wash.), J. W. Fulbright (D-Ark.).

S. 2907 was defeated last year after lengthy hearings before the Senate Judiciary Committee in which the measure was opposed by 37 witnesses, including The Associated General Contractors of America and many members, and representatives of federal construction agencies.

legislation since the Supreme Court handed down the Wunderlich decision. The fight of the general contracting industry to obtain equitable treatment in the handling of disputes arising under government contracts dates back more than 25 years.

Need for the legislation was brought to a head by the Court's decision in a case resulting from a dispute between the Wunderlich Contracting Co. of Omaha and the Bureau of Reclamation over the amount of adjustments under a change order. Despite the Court of Claims' finding that the department's action was "arbitrary," "capricious," and "grossly erroneous," the Supreme Court's decision appeared so positive as to prohibit administrative or judicial remedy, leaving only a legislative remedy.

Legal departments of some federal agencies, led by the General Services Administration, have been working toward a standard revision of the disputes clause in an effort to defeat the movement for legislation. A change in the disputes clause had, however, been sought many times in the past by leaders of the construction industry.

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ping. You choose from the complete line of on and off-the-road new General Tire treads and he'll put that tread on your worn tire. He can do sectional repairs too. Get Kraft System Recapping—get more profit from every tire.

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THINK CEDARAPIDS... ON EVERY JOB!

YOU aggregate producers are in a business where you have to think *big* in terms of the production and performance of your equipment. It just naturally leads to "thinking Cedarapids" for every job, because Cedarapids equipment is designed by construction men for construction men. Cedarapids engineers know the problems of the field because they're in the field finding out what it takes to keep ahead of changing conditions and methods, and meet the demands of constantly increasing production. They know *you* have to make money to stay in business . . . so they de-

vote every effort toward designing types and sizes of equipment to meet your specific requirements at the low operating and maintenance costs that give you a definite advantage in competitive bidding as well as a comfortable profit.

Whether your next job is large or small, easy or difficult, it will pay you to get complete details about the Cedarapids equipment that helps you *think big*. Your Cedarapids distributor will gladly recommend the equipment that gets the best results for you, at the lowest cost . . . call him today for facts and figures.

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The Cedarapids "Rock-It" is a two-in-one unit that reduces 22" stone down to road stone or aglime in one operation. Capacity? Aurora Limestone Products, of Aurora, Iowa, averaged a consistent 100 tons per hour on a 50,000 ton road stone job. Their "Rock-It" has produced 100 tons per hour and also 120 tons per hour on different jobs to keep well ahead of schedule.

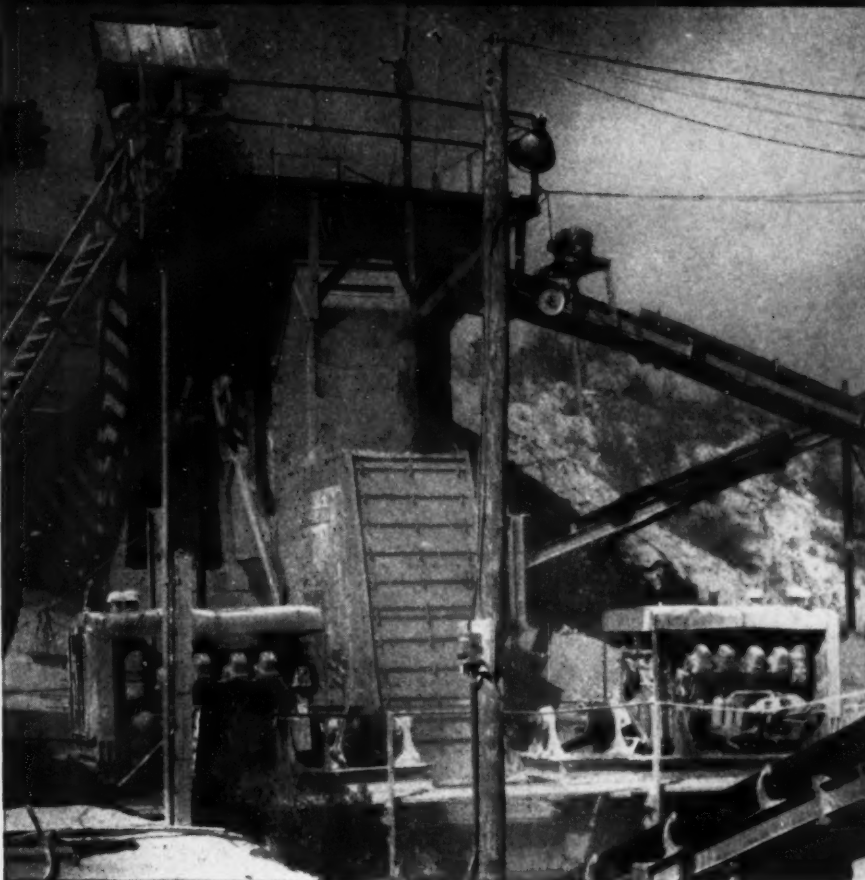
For crushing gravel, "Rock-It" Plants are now available with a 3018 Roll Crusher, in place of the 3033 or 2033 Hammermill, if desired. Your Cedarapids distributor can help you select the right crusher for your requirements.

BIG PRODUCTION

Cedarapids Double Impeller Impact Breakers can't be beat when it comes to hanging up tremendous daily tonnage records. Concrete Materials and Construction Company, using a Model 5050, averaged 600 tons per hour and hit a peak day's production record of 14,472 tons on their New Jersey Turnpike contract.

Using a Model 2020, Western Indiana Gravel Company worked an "impossible" pit and made money. Their problem was to produce gravel with 75% crushed particles in a pit containing 19% soft stone, several seams of conglomerate, with most of the gravel in the 1' to 1½" range, and very little plus 5".

For big volume of cubical shaped aggregate, for extremely low-cost operation, and for profitable production under tough conditions, be sure you investigate the advantages of Double Impeller Impact Breakers. Ask about the new portable plant.



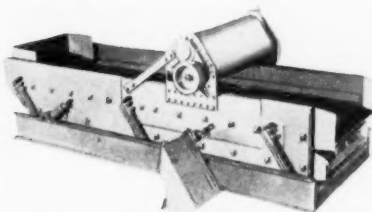
BIG PROFIT

Ask Reno Construction Company about Cedarapids Unitized Plants... they own six of them! They can depend on average hourly production of 150 tons from each plant... or they can combine the four basic units of the Unitized Plants in a number of different ways to meet specifications for every size products on other jobs.

Talk to B. L. Anderson of Cedar Rapids, Iowa. One of his three Unitized Plants is turning out 4 products at a time at a 210 ton per hour clip. That's "thinking big" about production.

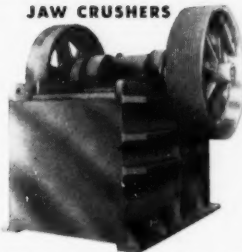


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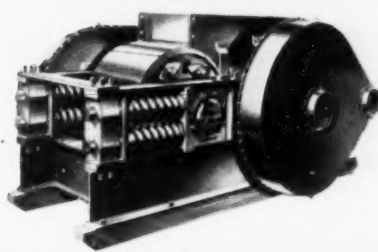
More efficient horizontal screening action, highly accurate gradation and large capacity combine to give you faster and more profitable screening at lower cost. Sizes range from 3' x 8' to 4' x 14' in double or triple deck styles.

JAW CRUSHERS



They're built to handle the toughest rock without pampering and produce up to 500 tons per hour at low cost! Available in 6" x 12" to 32" x 40" sizes in plain or roller bearing models. Ask about Twin Jaw Crushers for even higher capacities.

ROLL CRUSHERS



Here are the ideal units for producing a large volume of smaller sized aggregates. Seven sizes (from 16" x 16" to 40" x 24") available with two smooth or two corrugated roll shells, or one of each, depending on the product desired.

How U. S. Rubber belt engineers cut installation costs



View of 24" U. S. Giant Conveyor Belt carrying aggregate from mixing hopper to loading hopper in plant No. 2, Builders Supply Co., Houston, Texas.



Junction between cross belt and incline belt. They convey the aggregate to concrete mixing tower, which in turn supplies the waiting trucks.

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In a new concrete mix plant, original plans called for the installation of a 5-ply, 36 oz. duck conveyor belt to handle the aggregates. But United States Rubber Company engineers pointed out that their 4-ply, 42 oz. duck belt would not only cost less, but would be more flexible crosswise to trough, would train more easily and provide high-tensile strength as well. This 1,275-foot, 4-ply U.S. Giant Conveyor Belt was installed. It travels 300' per minute and delivers 294 tons per hour.

This is another instance of why it pays to consult "U.S." engineers before going ahead on a conveyor belt problem. Remember that they are backed by a wealth of experience and vast research facilities. Finally, they will work with your engineers and with the designers of conveyor equipment—a 3-Way Engineering teamwork that always pays off in higher output at lower cost. Write to address below.

Circuit court upholds NLRB ruling that union not required to furnish men.

—The United States Court of Appeals for the Seventh Circuit (Chicago) has held that, despite the Taft-Hartley Act's prohibition against secondary boycotts, a union was within its rights in refusing to furnish men to contractors who refused to accept the union's policy of forbidding installation of pre-glazed sash.

The court held, however, that the union was not permitted, through its by-laws or in any other manner, to cause men to actually quit work in a concerted effort to prohibit the use of pre-glazed sash, stating:

"... If two or more glaziers refuse to accept employment because of the use of pre-glazed sash there is no violation as they have not concertedly refused to work in the course of their employment. However, if they discover the use of pre-glazed sash after they are on the job and then refuse to work, it is a violation because they have done so in the course of their employment. At the same time, if there is only one glazier on each of several jobs and they each refuse to work, it is not a violation because their refusal is not concerted. These incongruities and others which could be mentioned are unavoidable because of the plain unambiguous language employed by Congress in enumerating the elements required to constitute a violation. . . ."

The court agreed with NLRB that the union's by-laws per se did not constitute a violation but disagreed with the board "in its holding that they do not constitute the inducement or encouragement which is an element essential to a violation."

(*Joliet Contractors Association et al. v. National Labor Relations Board*, 193 F.2d 833.)

NLRB discusses employer's right to assign work in discrimination ruling.

—The board recently upheld a trial examiner's findings in a case where a Machinists' union charged unfair labor practices on the part of the Eichleay Corp., Kenosha, Wis., in conditioning employment of millwrights upon membership in the Carpenters & Joiners, A. F. L.

The trial examiner discussed the right to assign work in this language:

"The second argument of the Respondent relates to implications which it avers are inherent in Section 8 (b) (D) of the act, making unlawful a strike by a labor organization where an object of the strike is to force or

Recent Labor Cases Affecting Construction

• Cases Prosecuted Under the Taft-Hartley Act

require 'any employer to assign particular work to employees in a particular labor organization or in a particular trade, craft, or class rather than to employees in another labor organization or in another trade, craft, or class, unless such employer is failing to conform to an order or certification of the board.' The Respondent argues that since the I.A.M. claims exclusive jurisdiction over millwrights, it is seeking through the instant proceeding to achieve an end which 'cannot be accomplished by the economic power of the charging party' inasmuch as the foregoing section of the act forbids jurisdictional strikes. The Respondent further argues that 'the clear implication of' Section 8 (b) (4) (D) of the act 'is that an employer has the right to avoid jurisdictional disputes by assigning work in accordance with established practice and/or written obligation.'

Work Assignment Limited

"Generally speaking, it is true that an employer has a certain freedom of choice in assigning work to employees, but that right is not without limitation. That is, in assigning work, the employer may not infringe upon the prohibition against discrimination contained in Section 8 (a) (3) of the act, and numerous decisions of the board have rejected the Respondent's argument that Section 8 (b) (4) (D) implies an exception to the proscription of Section 8 (a) (3) as to unlawful hiring practices. Thus, the board has stated:

"As we read Section 8 (b) (4) (D) and 10 (k), these Sections do not deprive an employer of the right to assign work to his own employees; nor were they intended to interfere with an employer's freedom to hire, subject only to the requirement against discrimination as contained in Section 8 (a) (3). (*Juneau Spruce Corp.*, 82 NLRB 650, 660. Also, *United Brotherhood of Carpenters and Joiners of America, et al.*, 88 NLRB 844; *National Association of Broadcast Engineers and Technicians, Independent, et al.*, 95 NLRB 1740.)

"Furthermore, in making determinations as to disputes brought before it under Section 10 (k) of the act,

the board has stressed the controlling impact of Section 8 (a) (3) upon Sections 8 (b) (4) (D) and 10 (k) by including the following reservation in its award:

"We are not by this action to be regarding as 'assigning' the work in question to the Machinists. Because an affirmative award to either labor organization would be tantamount to allowing that organization to require Westinghouse to employ only its members and therefore to violate Section 8 (a) (3) of the act, we believe we can make no such award. (*Los Angeles Building and Construction Trades Council, A.F.L., et al.*, 83 NLRB 477, 482. Also *Moore Drydock Co.*, 81 NLRB 1108, 1119).

"Upon the foregoing, (the trial examiner) rejects the Respondent's arguments that Section 8 (b) (4) (D) by implication gives an employer the right to assign work without regard to the prohibition against discrimination contained in Section 8 (a) (3) of the act. The fact that Section 8 (b) (4) (D) would forbid the I.A.M. from protesting the Respondent's discriminatory hiring practice by strike action cannot in any way estop the I.A.M. from bringing in issue such practices by filing charges that the Respondent has engaged in unfair labor practices within the meaning of Section 8 (a) (3) of the act. In conclusion, the undersigned finds (1) that since April 6, 1951, the Respondent has violated Section 8 (a) (3) of the act by entering into and/or continuing and enforcing its discriminatory oral agreement or understanding with the Carpenters that the Respondent would employ as millwrights only members of the Carpenters and (2) that by the foregoing conduct, the Respondent has interfered with, restrained, and coerced employees in the exercise of the rights guaranteed in Section 7 of the act."

(102 NLRB 63, Case No. 13-CA-910.)

NLRB rules strike involving products of foreign producer is secondary boycott in light of legislative history of act.—A shingle weaver's union stopped work for a shingle processing firm when the company began importing shingles from Canada. In a ma-

jority decision, the Board concluded:

"... the legislative history amply demonstrates that when a union causes employees to refuse to work on the products of any producer other than their employer because that product is, as here, nonunion, and it does so with the object of causing their employer to cease using the product of, or doing business with, the other producer, the conduct constitutes a secondary boycott of the type which Section 8(b)(4)(A) was intended to proscribe."

(Washington-Oregon Shingle Weavers' District Council, chartered by Bro. of Carpenters & Joiners, A.F.L., Everett Loc. 2580 Shingle Weavers Union) (Sound Shingle Co.) (19-CC-42; 101 NLRB 203)

Discriminatory ruling involving employers' association. — NLRB adopted findings and conclusions of trial examiner, with some modifications and exceptions, in case involving Heating, Piping and Air Conditioning Contractors New York City Association and Sheet Metal Workers International Association, Local No. 28. Board stated in part:

"We agree . . . that respondent association, Dierks (Heating Co.), and Local 28, respectively, violated Sections 8(a)(1), 8(a)(3), 8(b)(1) and 8(b)(2) by continuing provisions in their 1950 contract, as implemented by the rules of the Joint Adjustment Board, which granted illegal preferential hiring rights to members of Local 28. In so holding, we agree that the purported savings clause did not cure the otherwise illegal provisions . . .

"... we do not find an additional or an independent violation, of the above sections of the act, because the contract was interpreted by the Joint Adjustment Board to require members of the Heating Contractors Association to have their radiator enclosures fabricated by companies who hired members of a local affiliated with the Sheet Metal Workers International Association. For an employer to refrain, or agree to refrain at a union's request, from doing business with another employer with whom he has no current contractual relations or business dealings involves no unlawful interference, restraint or coercion as to the employees of the nonunion firm within the contemplation of Section 8(a)(1) or 8(b)(1)(A) . . ."

(102 NLRB 167; Cases 2-CA-2185, 2-CB-693)

Attention Centers on Taft-Hartley Hearings

• Industry Returns to Normal Bargaining After Decontrol

» WITH WAGE controls scrapped, attention on the labor front is focussed on Congressional hearings for anticipated changes in the Taft-Hartley Act, indications of labor policies that the new Administration may follow, and problems affecting bargaining which arose with revision of the government's consumer's price index.

By executive order, President Eisenhower on February 6 suspended all regulations and orders by wage and salary stabilization agencies, including the Construction Industry Stabilization Commission, under the Defense Production Act. The order said proposed wage adjustments pending before the agencies could be placed in effect without prior approval, and specifically provided that decontrol does not defeat any present or future enforcement proceedings resulting from violations occurring before February 6.

Cut-back limitations placed by CISC on joint applications were lifted with the duration of current wages depending upon the terms of agreements between employers and unions. The agency, which prior to issuance of the decontrol order had already acted upon all of its pending cases involving retroactivity, began issuing closing letters.

After spending two weeks hearing Congressmen who have proposed amendments to the Taft-Hartley Act and present and past officials of the National Labor Relations Board, the House Labor Committee early this month began hearing representatives of management and labor. Chairman Samuel K. McConnell, Jr. (Pa.) indicated that the hearings will close in mid-April after public representatives are heard with Secretary of Labor Martin P. Durkin expected to present the government's views as one of the last witnesses.

The Senate Education and Labor Committee, headed by H. Alexander Smith (N. J.) moved back its plans for opening hearings to mid-March.

Among witnesses appearing before the House Committee was former NLRB General Counsel Robert N. Denham, who averred that the entire agency was out of sympathy with the purposes of the Taft-Hartley Act, and recommended a wholesale housecleaning. He proposed a ban on organizational picketing and said the second-

ary boycott prohibition is too narrow.

In the course of his testimony, Mr. Denham praised the National Joint Board for the Settlement of Jurisdictional Disputes, stating its work had relieved NLRB of thousands of disputes in the construction industry, and cut losses of employers and employees from "millions of dollars" to 10 percent of the former figure. He suggested that a similar board of broader jurisdiction could relieve NLRB of most jurisdictional problems, but that the parties must agree to abide by the board's decision and not strike while it is considering a case.

Secretary of Labor Martin P. Durkin has appointed a tri-partite, 15-member advisory committee to his department which will consider problems relating to the Taft-Hartley Act as its first assignment. The committee, authorized by President Eisenhower, consists of five representatives each from the public, labor and management, and will be a continuing body which from time to time will consider particular problems confronting the Department of Labor. Mr. Durkin said its recommendations, while not binding on him, would be helpful in formulating the administration's proposals to the Congress.

The committee's members are: Public—Dr. Sumner H. Slichter, Harvard University; Cyrus S. Ching, former federal mediator; Dr. Jean T. McKelvey, Cornell University; Dr. Maurice T. Van Hecke, University of North Carolina; Dr. Paul A. Dodd, University of California at Los Angeles. Labor—George Meany, president, American Federation of Labor; George Harrison, president, Brotherhoods of Railway and Steamship Clerks, A.F.L.; Walter P. Reuther, president, Congress of Industrial Organizations; David J. McDonald, president, United Steelworkers, C.I.O.; John L. Lewis, president, United Mine Workers, independent. Industry—Harry M. Moses, president, Bituminous Coal Operators Association; David Zellerbach, president, Crown-Zellerbach Corp.; John J. O'Donnell, president, National Constructors; Ben Moreell, chairman, Jones & Laughlin Steel Co.; Frank Rising, president, Automotive & Aviation Parts Association.

» LAST YEAR the Bureau of Apprenticeship worked, as it did in 1951, to alleviate the manpower shortage for defense production, its annual report states.

The bureau's Skill-Improvement Program, designed to encourage and assist employers and labor in planning and establishing apprenticeship and other on-the-job training was expanded to meet national defense needs.

Recognition was given to the construction industry for the "major role" it played in the defense production program. The industry was praised for employing many thousands of on-site workers engaged in the building and expansion of industrial plants manufacturing military equipment, as well as in building houses for workers employed in those plants.

2.6 Million Men on Job

Such construction projects were in addition to the huge home building program which has been underway since World War II. In June of last year, the report continued, 2.6 million construction men were on the job—

Bureau of Apprenticeship Active in 1952

• Cites "Major Role" of Construction Industry in Defense

the highest number of on-site workers in the history of the industry.

Even so, because large numbers of apprentices joined the armed forces, it has been difficult to obtain qualified young men for apprenticeship, and the number of new ones has not kept pace with the demand.

Nevertheless, the construction industry has been greatly strengthened by the 15,000 apprentices who completed their training last year and became journeymen, the report added.

Cited too were the apprentice deferment regulations approved by the President last year and the recent enactment of the G.I. Bill for Korean Veterans which provides subsistence allowances and permits the industry to obtain and keep on the job more apprentices to meet demands.

Largely as a result of promotional work by the bureau's field staff, the number of local joint apprenticeship

committees in the building trades, which direct training programs, increased slightly. This "reflects the growing interest in every locality of employers and labor in apprentice training," the report added.

It also took note of recommendations made by The Associated General Contractors of America, at its Detroit convention, calling for more national trade committees to develop national standards of apprenticeship, and added that national standards have already been formulated in 13 building trades by joint committees in cooperation with the bureau.

Praise was given to national and local apprentice contests held during the year which were termed an "extremely effective" incentive to apprentices to perfect necessary skills of craftsmanship. These contests are sponsored by employer associations and building trades unions.

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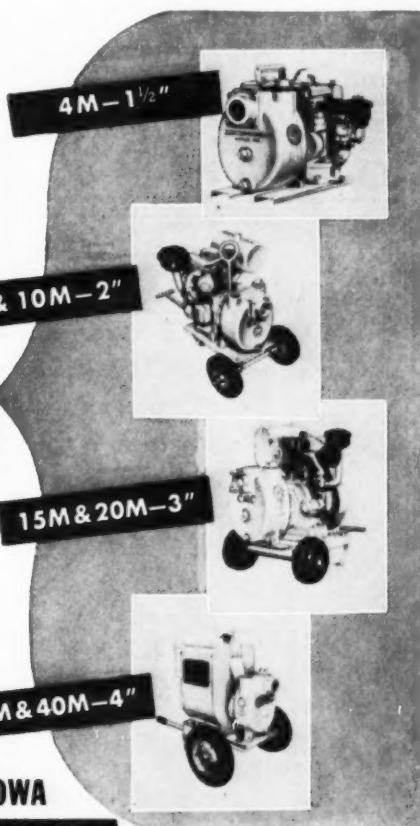


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Minnesota Plans Even Bigger Training Year

- Will Improve Bricklayer, Carpentry and Ironworker Programs

» THE A.G.C. of Minnesota, one of the most active chapters of The Associated General Contractors of America in the apprenticeship field, reported at its recent annual meeting anticipation that 1953 will be an even better year in apprentice training activity than was 1952. (See Page 90.)

Among plans reported is another pre-apprentice training course, an itinerant instructor program for bricklayer apprentices throughout the state, a building project at the state fair grounds, standardization of the statewide carpentry program, and work toward a program for training ironworkers.

In 1952, over-all activity was stepped up with the mason training program keeping its vigorous pace and the carpenter and cement finisher programs taking on new life. The chapter manager, R. J. Hendershott, received the A.G.C.'s award for outstanding work in apprentice training at the association's annual convention in March 1952.

Last year the chapter formed new joint apprenticeship committees in several cities, sponsored a pre-apprentice training school and a successful bricklayer apprentice competition viewed by 169,000 people at the state fair, conducted more than 50 bricklayer apprenticeship meetings, and graduated 38 apprentices to journeyman status. Since the program began in 1948, it has added 292 journeymen to bricklayer ranks.

In the Twin Cities alone, 41 new carpenter journeymen were graduated in 1952.

The chapter's promotion includes showing of films of the statewide apprenticeship contest, publication of training bulletins, and postal card surveys to assist members in obtaining bricklayer help and to place more apprentices on the job.

In addition, it assisted several apprentices in seeking deferment under amended Selective Service regulations, and helped veterans under the new Korean GI Bill.

VA Clarifies Korean GI Bill

The Veterans Administration has begun publishing a series of questions and answers designed to explain in detail different phases of the Korean GI Bill, and has announced yardsticks for determining whether veterans applying for training already are qualified for their chosen goals.

Prohibitions of Law

The law prohibits veterans from training under the Korean GI program toward goals they have already reached, either through previous schooling and training or through job experience. A veteran must select his final goal before training under the law, and must list his previous training and experience on the application form so the agency can rule whether he is already qualified for his vocational objective.

Applicants for apprentice training are considered already qualified "if, at any time in the past, they have been employed as full-fledged workers in the jobs they want to train for," VA stated.

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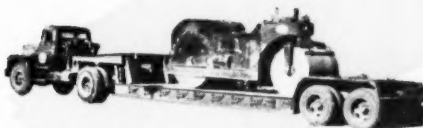
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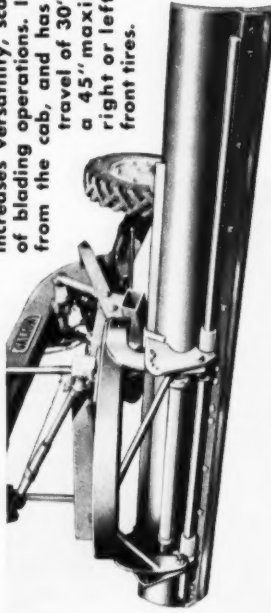


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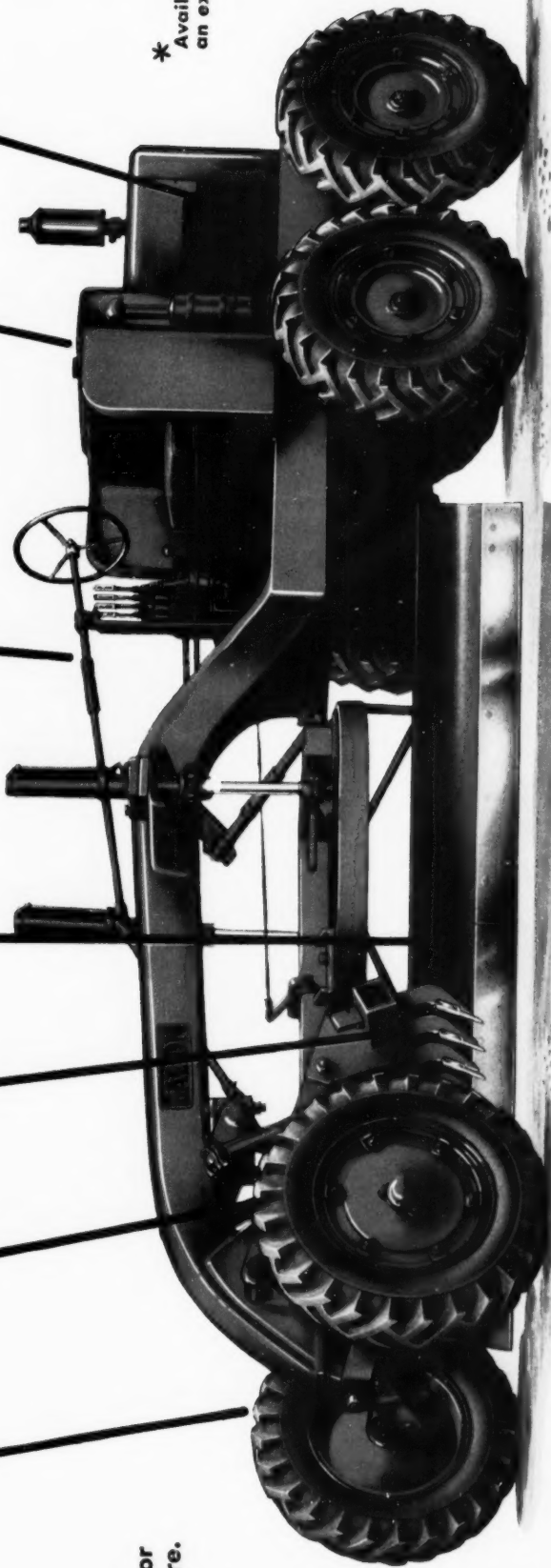
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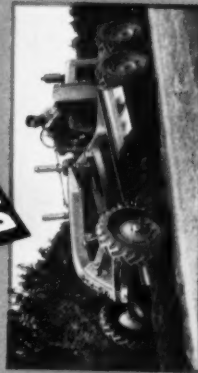
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Attendance Record Assured at Convention

• Leaders in Government, Defense and Labor are Major Speakers

» WITH reservations already totaling more than 1,300, it is rapidly becoming apparent that attendance at the 34th annual convention of The Associated General Contractors of America in Miami, March 23-26, will set a record.

Frank J. Rooney, chairman of the general committee for the meeting, said he expects a final registration of 1,500. He added that his committee has worked hard on arrangements to receive those who will attend and is confident that the distinctive program of outdoor recreation that has been planned to take advantage of the locale as a "winter playground" will be of interest to all.

Meanwhile the A.G.C. announced the names of five of the speakers who will address the convention. They are: W. Walter Williams, Under Secretary of Commerce; Carlton S. Proctor, past president of the American Society of Civil Engineers; Major Gen. Samuel D. Sturgis, Jr., Acting Chief of Engineers of the Army; Rear Admiral J. F. Jelley, Chief, Bureau of Yards and Docks of the Navy, and Richard J. Gray, President of the Building and Construction Trades Department of the American Federation of Labor.

Messrs. Williams, Gray and Proctor will address the meeting's opening general session on Monday, March 23. Gen. Sturgis and Admiral Jelley will speak on Tuesday at the second general session. The third and final convention session will be held on Thursday.

As a departure from previous conventions all business sessions will be held in the morning, leaving afternoons and evenings free for social activities. All sessions will be

in convention headquarters, Miami Bayfront Auditorium. Wednesday morning has been set aside for separate meetings of the building, highway and heavy railroad divisions of the association.

Committee meetings on Friday, Saturday and Sunday will precede the opening of the convention. The executive committee will convene on Saturday and the association's Governing and Advisory Boards will meet Sunday and again on Thursday, March 26.

Joint cooperative committees, which the A.G.C. maintains with the Producers' Council, Construction Industry Manufacturers Association, Associated Equipment Distributors, American Association of State Highway Officials and National Association of State Aviation Officials, will hold meetings in conjunction with the convention.

Highlights of the entertainment program include a golf tournament for men Monday afternoon, a "Day at the Races" at Gulfstream Race Track on Tuesday afternoon and a beach party at Crandon Park Wednesday afternoon. Local tours have also been planned. Mrs. M. R. Harrison, Jr., and Mrs. Frank J. Rooney are co-chairmen of the ladies program.

Host for the meeting is the South Florida Chapter of Miami. The chapters and branches of District 10—North and South Carolina, Florida, Georgia and Virginia—are co-sponsors.



General Sturgis



Admiral Jelley



Mr. Gray



Mr. Proctor



Mr. Williams

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Rolling Metal Doors with movable mullions prove to be ideal for a removable dividing wall in the gymnasium of a modern high school. In this particular installation, four power operated rolling doors are employed in the main floor area . . . two more power operated rolling doors are employed to divide the balcony on either side of the gymnasium floor, thus dividing the gymnasium into two entirely separate parts—which is desirable on many occasions in present-day usage. All visible parts of the six rolling doors, were manufactured in aluminum. Similar installations can be made in stainless steel, or in enamel coated galvanized steel which may be painted after erection to harmonize with a general decorative scheme. For high quality Rolling Metal Doors, and Underwriters' Labeled Rolling Steel Fire Doors and window Shutters, see Mahon's Insert in Sweet's Files, or write for Catalog G-53. Inquiries relative to special purpose doors, and installations such as the one illustrated here, should be addressed to the home office in Detroit for prompt attention.

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MAHON

THE CONSTRUCTOR, MARCH 1953

» THE USE of a uniform contract for municipal engineering construction projects (excluding building construction) was recommended by the national joint committee of the American Public Works Association and the A.G.C. at its first meeting held recently in Chicago.

The committee said one should be prepared and submitted to its parent organizations for their approval, adding that the "Suggested Form of Contract for Engineering projects," 1953 edition, should be studied by the committee and "consideration given to adapting it for use by municipalities."

The committee was set up in October, 1952, to consider matters in municipal construction of interest to municipal and general contractors,

Bureau May Pay Damages

The Navy Bureau of Yards and Docks has agreed to consider requests from contractors, prior to bidding, that the government assume all or part of flood, ice and disaster damage in cases where these hazards are so unusual that the contractor cannot obtain proper insurance, or where the cost of such insurance is prohibitive, thereby greatly increasing the contingency in the bid.

This decision was announced by officials of the bureau at a meeting in Washington last month with members of the A.G.C. task unit for bureau specifications. E. P. Coblentz, chairman of the committee, presided. Others present were John MacLeod, A.G.C. vice-president elect; J. M. Sprouse, A.G.C. national staff, and from the bureau, Comdr. T. L. Jackson, director, Contracts Administration Division; B. J. Katz, manager, Contracts Branch, and R. J. Potbury, manager, Specifications and Estimating Branch.

In regard to damages resulting from delays caused by the government, the bureau said suspension or stop orders should be issued by the contracting officer but stipulated that where the contractor anticipates that the delay will be for an unreasonable length of time he should ask the contracting officer for a written notice to suspend operations as necessary.

Officials of the bureau thought there would probably be no objection to setting up the fee paid by the contractor for his performance bond as a separate pay item and paying it at the time of the first partial payment.

Uniform Contract Recommended For City Engineering Projects

- A.P.W.A.-A.G.C. Body Expects Building Ventures
- Advises Higher Pay For Municipal Engineers

public works officials and others, and to submit appropriate recommendations for approval to its parent associations from time to time. A. S. Horner, A.G.C. president, and Allan H. Rogers, of New York, president of A.P.W.A., who accepted Mr. Horner's suggestion that a joint committee be formed, attended the group's initial meeting.

The committee requested that its parent associations pass resolutions urging that engineers employed in administering municipal construction be paid salaries "commensurate" with salaries paid by private industry."

Other positions taken by the committee were:

Inspection: The committee agreed that for various reasons inspection on municipal construction is too often unsatisfactory and asked the A.P.W.A. and the A.G.C. to adopt resolutions recommending that all municipal construction and inspection be under supervision of a registered professional engineer, and further, that preferably both functions be under supervision of the same engineer or engineering department.

Day Labor: Believing that the taxpayers' best interests are not served

by municipalities engaging in extensive day labor (force account) construction programs, the committee requested its respective associations to adopt resolutions recommending that, when it is in the best interests of the municipalities, all construction be accomplished through the medium of open, competitive bidding by qualified contractors, and further recommending that, for comparison purposes, municipalities keep adequate, comprehensive cost records on day labor work and that such cost records be open to inspection by proper public parties.

Furnishing of Materials and Equipment: Feeling that the contractor should not be expected to assume full responsibility for construction projects when the municipality furnishes the material and equipment, the committee asked for resolutions recommending that on each contract the materials and equipment to be incorporated in the project be furnished by the contractor, except when it is clearly contrary to the best interests of the municipality.

Those present at the meeting are shown in the accompanying photograph. H. M. Stanton, Chicago Builders Chapter, A.G.C., attended but is not pictured.



First meeting of the national joint committee of the A.P.W.A. and A.G.C.—Seated left to right are: J. M. Sprouse, A.G.C. Washington, co-secretary; Milton Rosen, Commissioner of Finance, St. Paul, Minn.; George R. Thompson, City Engineer, Detroit, co-chairman; C. Russell Ralph, Kaw Paving Co., Topeka, Kan., co-chairman; A. H. Rogers, Superintendent of Public Works, Garden City, N. Y., and president of A.P.W.A., and A. S. Horner, A. S. Horner Construction Co., and president of A.G.C. Standing: Milton Offner, Secretary, Board of Public Works, Los Angeles; Lyall Pardee, Deputy Engineer, Dept. of Public Works, Los Angeles; J. A. Thompson, J. A. Thompson and Son, Inglewood, Calif.; D. F. Herrick, A.P.W.A. Chicago, co-secretary; F. S. Oldt, F. S. Oldt Co., Dallas; R. M. Dixon, Municipal Contractors Assn., A.G.C., Dallas; Roy F. O'Mara, Allegheny Asphalt and Paving Co., Pittsburgh, and R. M. Bugher, A.P.W.A. Chicago.

Easing Supplies May Stimulate Backlog of Civilian Construction

- Will Potentials Be Realized, Horner Asks
- Calls Upon BuRec For Uniform Bidding Rules

» NOW THAT government controls are no more and materials are becoming increasingly available, the construction industry may soon have a clear indication of how the various elements in the nation, government, business, institutions and individuals, are going to order on the backlog of their construction needs, Arthur S. Horner, A.G.C. president, declared recently at the annual Conference for Construction Engineers of the Bureau of Reclamation in Denver, Col.

"The potentials, as we see it, are for a continued high level of activity in the construction industry in the foreseeable future. The big question, of course, is whether or not the potentials will be realized," Mr. Horner declared.

As contrasted with the billions of dollars which have been spent for defense with results that are not too tangible, the A.G.C. president said he believed the country will be receptive to programs which will provide many of the things "that we have needed for so long, and can see, and make beneficial use of, especially if it is pointed out that the carrying out of such programs will help to stabilize the economy."

Country Must Be Advised

In this connection, Mr. Horner declared:

"We believe that we must do our utmost, in collaboration with public agencies, engineers, architects and others, to advise the country that the construction industry can efficiently carry out the nation's construction needs, and that the industry can perform its important role of a balance wheel in the stabilization of the economy of the country."

"No other industry is so well qualified to provide so much employment and at the same time deliver a dollar's worth of needed facilities for the entire population for every dollar expended."

Mr. Horner said A.G.C. realized that with one dollar out of every eight created in products and services in the nation a construction dollar, those in

the industry had a tremendous responsibility in the future of the country. A.G.C. members were proud, he declared, of their opportunity to demonstrate that contractors have an interest "over and above the profits or losses on specific jobs" and believed their discharge of this responsibility would create greater public confidence in the industry.

With government and industry sources predicting that new construction will rise to \$33.5 billion this year, and with maintenance and repair operations bringing the total to \$44 billion, the outlook for the immediate future is bright, Mr. Horner said.

"The long-range prospects for the industry also are good," he added. "The backlog of identifiable projects known to be in the planning stage but not yet under construction exceeds \$68 billion. According to surveys, business and industry are planning large expenditures for plants and equipment in spite of the recent high levels of industrial construction."

"You are familiar with the needs for school rooms, hospital beds, more adequate highways, water and sanitation facilities, etc., due to the retarding of commercial construction in recent years."

Activity Can Continue

"Studies by economists indicate that if proper policies are followed so that our economy continues dynamic, our volume of business activity can continue to increase after defense spending tapers off."

Mr. Horner said he was highly gratified that the bureau had continued its meetings with an A.G.C. task unit over the past several years. Contractors, he said, were glad to be part of a team with engineers in the bureau working toward the common objective of better construction with greater efficiency.

"We in the A.G.C. believe that these meetings have been very effective in bringing about a better understanding of each other's problems, in developing an atmosphere of mutual respect, and in leading to practical sug-

gestions which already have been tremendously valuable in reducing costs," said the A.G.C. head.

"It would be impressive to the public if a reasonably accurate estimate could be reported of the millions of dollars which have been saved so far by the improvements in specifications and procedures which have been developed jointly through the cooperation of bureau engineers and contractors."

Wants Identical Rules

Mr. Horner called for identical rules for all bidders on bureau jobs to enable the government to secure the maximum benefits from the intense competition in the construction industry. He said every effort must be made to reduce unnecessary hazards to permit bids to be as free as possible of contingency items.

Recognition of the many hazards under which construction must be carried out made it all the more imperative to eliminate those which were avoidable, he declared. The more work which can be done within known or foreseeable conditions, the more efficiently we can operate and the lower we can bid, Mr. Horner declared.

Complete Plans Needed

"This is the reason why you have heard contractors ask for clear and definite specifications; for accurate estimates of quantities; for all possible reliable advance information on soil and other conditions; for complete plans at the time of bidding; uniform inspection, and for prompt and fair decisions on all changes," the A.G.C. president said.

Mr. Horner said the A.G.C. agreed with the objectives of the Federal Construction Contract Act, S. 2907, which did not come to a vote in Congress last year, but does not believe the legislation would accomplish its purpose. The bill would require general contractors submitting bids on federal public works to name in their bids the subcontractors they propose to use and their prices.

He said A.G.C. believes the effect of the bill would be to seriously hamper general contractors in accepting and discharging undivided responsibility and would place unreasonable administrative burdens and legal obligations upon federal agencies. We believe, he said, that the various branches of the industry should take upon themselves the responsibility of settling problems of the industry.

BuRec—A.G.C. Committee Meets in Denver

• Bigger Allowance on Extra Work To Be Recommended Again

» IN RESPONSE to a request by the A.G.C. Task Unit For Bureau of Reclamation Specifications, officials of the bureau will once again recommend to the Secretary of the Interior that contractors performing extra work for the bureau be given a more equitable allowance for overhead and profit.

The task unit's request was made at a meeting of the A.G.C. group with members of the bureau at Denver last month. Pointing out that on extra work for the bureau, overhead alone runs from 14% to 23%, task unit members asked that the 10% presently allowed for both overhead and profit be increased. Although a previous attempt to raise this figure failed, bureau men said they will try again.

The bureau felt that the extensive delays and excessive costs being experienced by contractors because of unreasonable demands of machinery manufacturers could be remedied and said it would study the problem.

Improvement in Inspection

The A.G.C. task unit said it was gratified at the progress toward more uniform field inspection but declared it had received several complaints about confusion and delays on bureau jobs caused by the retention of the full inspection force even when only a small portion of the work remained to be done.

On other subjects considered at the meeting the bureau said:

More equitable hourly rental rates

for equipment used on extra work are being drafted.

A special flag will identify jobs on which cost data is required.

Consideration will be given to the A.G.C. request that the contractor's performance bond fee be set up as a separate item and paid at the time of the first partial payment.

Elimination of ambiguous language in its contracts will be continued.

It would further consider the possibility of assuming responsibility for flood, ice and disaster damage on bureau jobs.

Field men will be instructed to identify extras promptly and to negotiate their approximate cost as they arise.

Do Structure Work First

Contractors on canal and lateral work should do the structure work before the embankment, to eliminate difficulty with the embankment.

It wants protection from unwarranted unbalance bidding and feels that bidders can and should reduce such unbalancing.

A.G.C. said in reply to a bureau question, that it does not favor separate contracts for painting, and would query its members and advise the bureau on their reaction to including painting in the bid item for installing machinery. The task unit asked that its suggestion to reduce the retained percentage of final payment to not more than 10% of the uncompleted work after a job is more than 50% completed, be kept under consideration.



Denver meeting of the A.G.C. Task Unit For Bureau of Reclamation Specifications and officials of the bureau: seated left to right are L. N. McClellan, chief engineer of the bureau; William De Butts, Sioux City, Iowa, member of the task unit; J. M. Sprouse, A.G.C. national staff; George C. Looz, Oakland, Calif., and Wallace Curtis, Boise, Idaho, chairman and member respectively of the task unit, and Grant Bloodgood, chief construction engineer of the bureau. Standing are Ralph Gullett, B. Palmer King, Hyman Berger, Harold W. Foster, Donald J. Searles and Leigh G. Cairns, all officials of the Bureau.

HOW TO HANDLE WET JOBS

#15 of a series

LEHIGH PORTLAND CEMENT PLANT

Bunnell, Florida

Contractors: Walsh Construction and Duval Engineering & Cont'g Co.



WELLPOINT METHOD SPEEDS \$11,000,000 PROJECT

SOIL ON THIS JOB was a coarse coquina shell—the very material to be manufactured into the cement. Thus, the site was a natural from the builder's angle. Not so from the pre-drainage angle.

• Water flows through coquina in virtual torrents, and old-timers will recall the days when such a problem—on a job this size—would have spelled headaches: possibly sheeting—certainly much added cost and delay.

• Modern wellpoint methods—so many of them pioneered by Griffin—have changed all that. The system shown in photo dried the job quickly, perfectly and economically, pumping over 7,000,000 gals daily for more than a year. It was not by chance that the Griffin method was selected. Both contractors had used it before—and wanted it again.



WELLPOINT CORP.

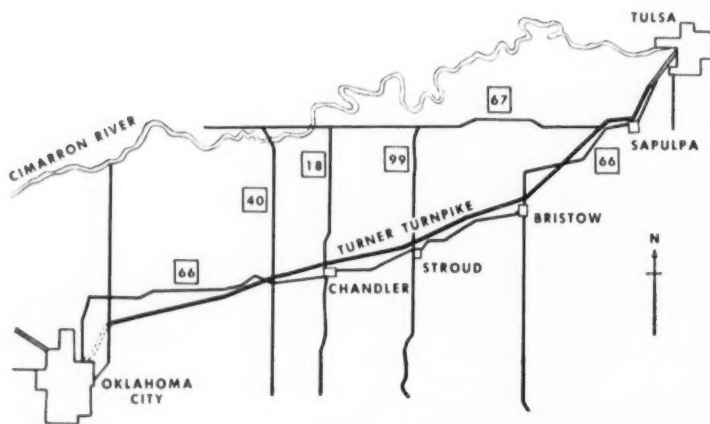
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**Performance on the Turner Turnpike
makes the Allis-Chalmers AD-40 Grader**

A New Regular for Gillioz



One of the most modern highways in the Southwest will soon connect Oklahoma City and Tulsa, Oklahoma. Twin 24-foot roadways will save travelers almost a full hour of driving time on this 88-mile stretch; 12-foot paved shoulders, slight grades and long curves will make driving easier and safer, too.



Turner Turnpike in final stages of construction shows how it aims for horizon with arrow-like straightness. Right-of-way is 200 to 400 feet wide. Grades are maximum of 3 percent.

M. E. Gillioz, Monette, Missouri, was awarded three of the Turner Turnpike contracts; each for clearing, grading, culvert work and fine grading. Gillioz, with half a century of experience in earth moving, has one of the largest contracting organizations with one of the biggest fleets of Allis-Chalmers tractors in the area. And now there's a new regular in the Gillioz fleet — an Allis-Chalmers heavy-duty AD-40 motor grader.

The AD-40 proved to Gillioz on his Turner Turnpike jobs that it represents real progress in motor grader design. His operators could see front wheels and both ends of the blade well because (1) A-C's single-member frame goes from front axle to platform; (2) front platform corners are tapered; (3) lift cases are smaller; (4) control box is lower, and assemblies have been eliminated from the front panel to provide best possible visibility of the work area directly ahead of the operator. Low center of gravity made the new grader ideal for sloping operations, too.

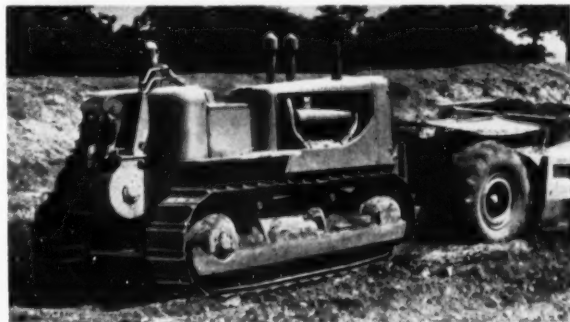
Gillioz men also like the operating comfort built into the AD-40. It has ample leg room for stand-up operation. And for easy, comfortable sit-down work, the AD-40 has a seat that rolls forward at a touch plus an adjustable-height steering wheel.

These advantages teamed up with a new kind of power steering and outstanding service simplicity to make the AD-40 a new regular for Gillioz. It will pay you to consider putting this job-proved grader on your team, too. See your nearby Allis-Chalmers dealer soon for all the facts.



Allis-Chalmers AD-40 finish grades one stretch of the new turnpike. The completed highway will be divided by 15-foot landscaped center mall.

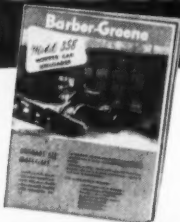
An HD-20, one of the Gillioz fleet of ten Allis-Chalmers torque converter tractors, sends a rubber-tired scraper off to the fill with a flying start.



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CONTRACTS • SPECIFICATIONS

Three Construction Renegotiators Named

• Responsible For Contracts Handled by Regional Boards

» THE APPOINTMENT of three construction specialists to serve as renegotiators responsible for construction contract matters in regional renegotiation boards, has been announced.

They are: Paul Spencer, of San Dimas, Calif., president and owner of the construction company bearing his name and a former director of the



Paul Spencer

Southern California Chapter of A.G.C.; Lewis L. Hill, of Takoma Park, Md., former structural research engineer with the Federal Civil Defense Administration, Washington, D.C., and Carl E. Billings, of Barrington, Ill., formerly general superintendent in charge of administrative and supervisory work on the Wherry Act Housing Project at Selfridge Air Force Base in Michigan.

New York Post Pending

Mr. Spencer is with the Los Angeles Regional Renegotiation Board and Mr. Hill and Mr. Billings are with the Chicago board. The selection of a specialist for the New York board has not been announced.

Mr. Spencer goes to the Los Angeles board with a background of 25 years' experience in the construction industry. Since 1945 he has been president and owner of the Paul Spencer Construction Co.; Sycamore Groves, Inc., and the San Dimas Building Supply, all of San Dimas, Calif. The construction company specializes in public housing projects throughout California and underground utility projects. He has delegated his management responsibilities for the duration of his appointment.

Born in Temple, Texas, Mr. Spencer studied civil engineering at Southern Methodist University in 1927 and was graduated from Occidental College in Los Angeles in 1928 as a major in economics. He has served as chairman of the A.G.C. Southern California Chapter legislative committee.

From 1944 to 1945, Mr. Spencer was project engineer for Marsch, Smith and Powell, architects of Los Angeles,

who were engaged in the fabrication and erection of more than 5,000 dwelling units in Southern California, a project sponsored by the Federal Public Housing Administration. The previous year Mr. Spencer was project manager for R. J. Daum, general contractor of Inglewood, Calif., engaged in general construction projects for the Army, Navy and FPHA. His prior years were spent as clerk of the works for a firm of architects and engineers and with the Los Angeles Housing Authority.

Studied Atom Blasts

Mr. Hill, before his appointment to the Chicago board, was engaged primarily in making studies and reports on atomic blast effects on industrial plants, and designing protective installations. He has done original research in the design of multiple housing units that are resistant to the effects of earthquakes, hurricanes and bomb blasts, and has served as senior civil engineer with the Defense Plant Corporation. In the latter capacity he was concerned with the negotiation and settlement of terminated war contracts. Mr. Hill was born in White Sulphur Springs, Mont., and is a civil engineering graduate from Montana State College. He is a professional engineer and was in private practice in Florida as a structural engineer from 1925 to 1942.

From 1948 to 1951 Mr. Billings was general superintendent for Algot B. Larson, Inc., of Chicago, general building contractors. During the preceding three years Mr. Billings was general superintendent for Walsh Construction Co., A.G.C., of Davenport, Iowa. For 17 years Mr. Billings operated his own contracting business at Barrington, employing up to 250 building mechanics. He is a graduate of the University of Wisconsin.

• **John T. Koehler's resignation** as chairman and member of the Renegotiation Board, effective Feb. 15, has been accepted by President Eisenhower. Mr. Koehler, who will practice law in Washington, headed the board through the reorganization period beginning in October, 1951. His successor has not been announced.

Power Project Renegotiation

The Renegotiation Board has amended its regulations to define more clearly how they apply to hydroelectric power construction contracts of the Corps of Engineers and the Bureau of Reclamation.

The amended regulations state that Corps of Engineers' civil works contracts under the following projects are subject to renegotiation for the reason that they have as part of their purposes the increase of power facilities for defense:

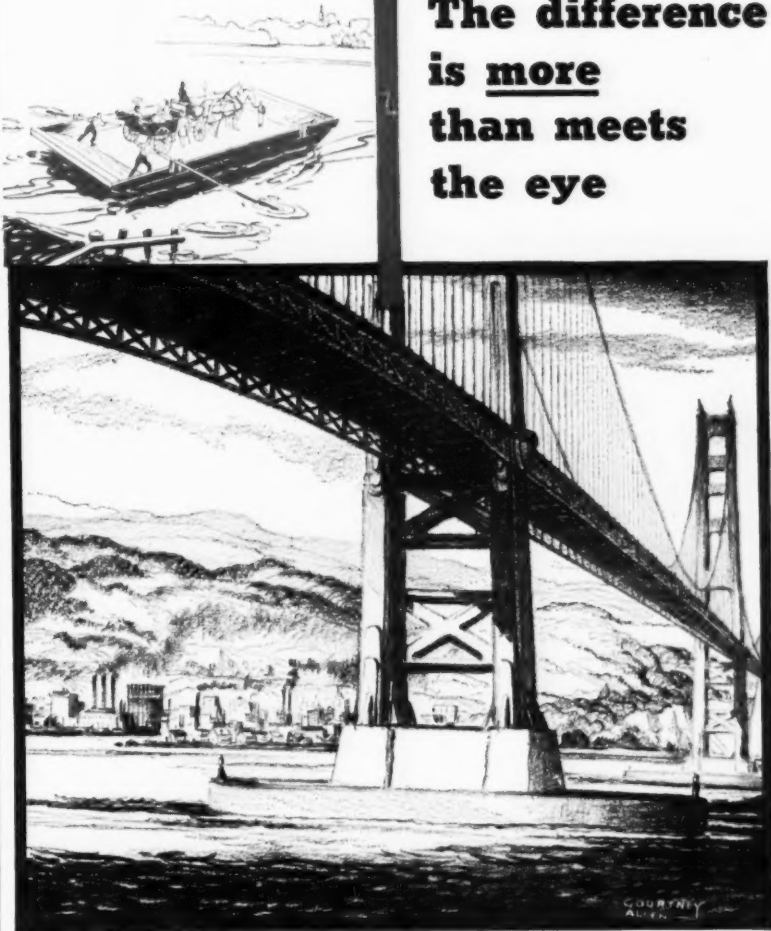
Albeni Falls, Idaho; Allatoona, Buford, Georgia; Blakely Mountain, Bull Shoals, Narrows, Norfolk, Arkansas; Bonneville, McNary, The Dalles, Oregon and Washington; Center Hill, Cheatham, Dale Hollow, Old Hickory, Tennessee; Chief Joseph, Washington; Clark Hill, Georgia and South Carolina; Denison, Whitney, Texas and Oklahoma; Detroit, Lookout Point, Oregon; Folsom, California; Fort Gibson, Tenkiller Ferry, Oklahoma; Fort Peck, Montana; Fort Randall, Oahe, South Dakota; Garrison, North Dakota; Gavins Point, Nebraska and South Dakota; Jim Woodruff, Florida; John H. Kerr, Philpott, Virginia; St. Marys, Michigan, and Wolf Creek, Kentucky.

Bureau of Reclamation projects which are subject to renegotiation for the same reason are as follows:

Boise Project, Anderson Ranch Dam, and Palisades Project, Idaho; Davis Dam Project, and Boulder Canyon Project, Hoover Dam and Power Plant, Arizona-Nevada; Columbia Basin Project and Yakima Project, Kennewick Division, Washington; Kendrick and Shoshone Projects, Wyoming; Fort Peck and Hungry Horse Projects, Montana; Central Valley Project, California; Colorado-Big Thompson Project, Colorado; Eklutna Project, Alaska; Rio Grande Project, Power Division, New Mexico-Texas; Weber Basin Project, Utah; and Missouri Basin Project (Angostura Unit, South Dakota; Boysen and Kortes Units, Wyoming; Canyon Ferry Unit, and Missouri Diversion Unit, Transmission Division, Montana).

Contracts for irrigation, navigation or flood control works which are not on the site of the main power facility are not subject to renegotiation.

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than meets
the eye**




Modern bridges do *more* than replace the old-fashioned ferry. They speed transportation and commerce by opening the way to new markets. They establish new lines of communication, overcome obstacles to progress and bind the nation into a closer unity. These are the real accomplishments of America's great construction industry.

The Aetna Casualty & Surety Company — through its nationwide bonding organization — is proud to have worked with so many contractors on countless projects that serve the nation better. To serve *you* better, the Aetna has constantly expanded and improved its bonding facilities. That is why you can always count on Aetna for prompt, informed, efficient service. That is why so many contractors bond with Aetna — always.

No job too big--no job too small

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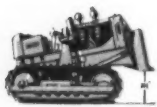


More Push
at the Blade!

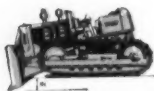
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(No Pushbeam)



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Higher, Faster Lift—full 39½ inches above ground. Unusually good center of gravity affords excellent leverage and maximum traction with blade in any position.



Deeper, Faster Bite—full 15½ inch drop below ground. Positive down pressure, elimination of "bounce", and steeper approach angle puts—and keeps—blade down deep.

Baker's revolutionary, no pushbeam, highway width 9X dozer proved that *it could be done!* Now . . . Baker presents a *bigger, more powerful* edition—the Baker 15X—combining the famous Baker "roll action" 96 inch-wide blade with the 109 drawbar hp of A-C's HD-15.

The successful result of painstaking design and exhaustive testing, the big-capacity 15X utilizes Baker's specially engineered hydraulic lifting mechanism to direct every ounce of horsepower to where it counts most—at the *dozer blade!*

Now! . . . ask your Baker, Allis-Chalmers dealer for complete information about this completely new Baker 15X.

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Check These Features!

- Legal Highway Portability—only 96" wide • Big Yardage Mold-board • More Horsepower at the Blade • Sure Footed—greater track oscillation • Working Center of Gravity • "Operator-Ease" Control • Design for Easy Servicing • Lighter—Less Cost.

Always Look to Baker for the Next Advancement—First

» A CURT indictment of the concentration of the nation's industrial might in large cities was leveled recently in a report made for the National Security Resources Board. Nine eastern colleges, collaborating on the study "Project East River," presented a case for immediate and radical measures to spread out America's defense facilities.

The weighty 10-volume report incorporates recommendations which, if adopted by the new Administration, might eventually transform the physical character of at least 60 large cities. The objective of the collaborators is more immediate—to prevent further industrial build-up in those cities where they will make the most attractive targets for air attacks. The construction industry is directly involved by the nature of the measures advocated. The advisors declare that vulnerability of urban centers can only be reduced in two ways: (1) By reducing building and population densities in the key cities and (2) by design and construction of bomb-resistant structures.

Vulnerable Areas Mapped

Civil engineers, architects and city planners participating in the study agreed that the most vulnerable sections of strategic U. S. cities should be blocked out on the basis of population and concentration of defense-supporting industries. These most vulnerable areas would be known as Class I and the slightly less strategic as Class II districts. In both areas, definite limits on new construction would be laid down and specific structural requirements enforced.

Construction Bans Proposed

Construction in Class I districts would be most rigidly controlled. Some of the restraints recommended are:

- No defense-supporting industries could be built within 10 mi.
- No residential construction could be undertaken except under redevelopment planning which would reduce population density 20%.
- No commercial construction could be begun except redevelopment which would reduce floor area ratio by 20%.
- Shelter areas would be required in all new buildings. They would be built by strict minimum standards, including such provisions as these: (1) That it be designed with 6 sq. ft. per person in each building at its normal peak population, (2) that it be located below the top floor, and (3) that it be surrounded on all sides by the equivalent of 12 in. of reinforced concrete.

Federal Action Urged to Halt Building in Vulnerable Areas

- "Project East River" Hits Industrial Concentration
- Strict Construction Limits Set for Target Cities

- No new wall-bearing construction would be permitted.

Restraints in Class II Areas

Class II districts would be those with daytime and resident populations of 100,000 persons within a 4-mi. diameter circle. The specific restrictions upon building in these areas include the following:

- No defense-supporting industries could be built within 6 mi.
- Residential building would be limited to one dwelling unit per 5,000 sq. ft. of lot area or to redevelopment resulting in 20% reduction in population density. Maximum lot coverage of 30%.
- Commercial building would be limited to maximum floor area ratio of 1.0 or redevelopment resulting in 20% reduction in floor area ratio.

Extent of Concentration

The extent to which industry is concentrating its expansion in urban centers is apparent in an appraisal of the certificates of necessity program. Almost \$25 billion worth of industrial construction has been approved and many of the 15,660 new or expanded facilities are being built in or near vulnerable areas. The agency administering the program is charged with avoiding this wherever possible. In some instances, it requires that "protective construction" be planned for the facility—such features as extra-heavy roofs and underground construction where feasible.

It is to halt this trend toward tremendous concentration that the "Project East River" group has made its recommendations. The authors believe that the application of defense standards to new building during only a 10-year period could have reduced U. S. urban vulnerability by 20%. "As it is, the total physical structure of this country's major cities increased about 25% in size during the past decade," they reveal.

- Shelters would be required in all new buildings except dwelling units opening directly to the ground.
- New wall-bearing construction would be limited to three stories.

Other minimum building standards respecting both strength of structure and fireproofing were recommended as precautionary measures.

"Ring" Highways Recommended

Besides seeking to transform industrial and residential building patterns, the "Project East River" group attacked the vulnerability of urban traffic systems which might be demolished or obstructed by rubble. It suggested that circumferential highways (around cities) be built wherever possible instead of radial expressways.

The report unhesitatingly placed prime responsibility for the dispersion measures upon the federal government. "It cannot be expected that private business, local, and state governments will act until the federal government demonstrates its leadership in this field," the report asserts. "These goals for city building and redevelopment cannot be achieved by federal action alone, but the federal government can and should take the lead by establishment of standards for federal construction and financing of construction with federal funds."

Suggest Federal Measures

Although industrial and urban expansion is undertaken principally by private enterprise, the advisors noted that federal influence is "of genuine significance." For example, of the total building construction in all urban areas in 1950, federally insured mortgages covered almost 29%, and an additional 7% was public housing, schools, institutions and other public works.

Federal leadership and action to further the dispersion movement was called for in designing and locating all federal public facilities and in federal assistance to defense plants (such as tax amortization, loans and procurement awards).



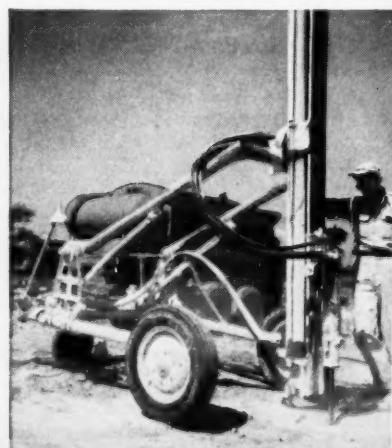
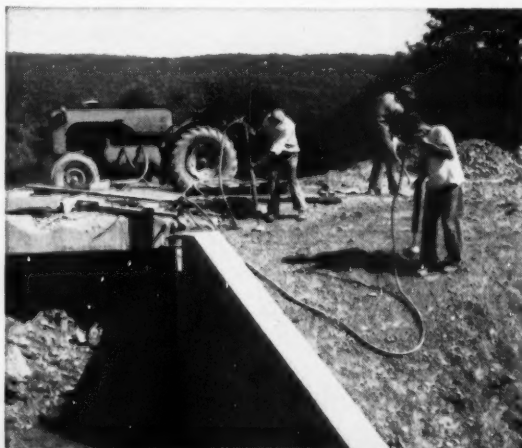
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Le Roi-CLEVELAND Sinkers are available in sizes from 18 to 80 lbs., with advantages you want. They use less air. They're easy to handle—operators don't tire easily. And they have what it takes to drill more feet per shift: Strong rotation. Powerful blow. High drilling speed.

Tractair is a combination 35-hp tractor and 105-cfm compressor that takes air power anywhere. Here, it operates two Le Roi-CLEVELAND backfill tampers. Can also be used for breaking, drilling — and, when equipped with front-end loader, for digging, loading, lifting, backfilling, snow-plowing, etc. This way, Tractair cuts costs and saves you the extra expense of special equipment.

Le Roi-CLEVELAND DR30 Wagon Drill puts deep holes down faster, with less air, than any other wagon drill available. Uses 4" bore Le Roi-CLEVELAND Drifter. Has strong rotation, powerful hole-cleaning ability, and high drilling speed with big bits. For shallow holes, the lightweight Le Roi-CLEVELAND DR34 is available.



Get air jobs done faster!

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Le Roi Airmaster Compressors
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Le Roi-CLEVELAND Air Tools

There are 9 sizes of Airmasters — and 14 models—ranging from 60 cfm to 600 cfm. A 600-cfm diesel unit is shown here. It's got the capacity to operate two deep-hole wagon drills with plenty of air to spare for other tools.

Every Airmaster is powered by a heavy-duty Le Roi engine designed especially for compressor service.

Le Roi-CLEVELAND Paving Breakers are available in sizes from 18 to 80 lbs. They really pack a wallop—make short work of breaking up the hardest concrete. Protective air cushion in front end assures long life. Well balanced for easy handling. Operators like them — and get more done.

YOU make the most of air power—speed your work and keep costs down — when you team up Le Roi Airmaster Compressors and Le Roi-CLEVELAND Air Tools. Here's why:

First of all, a Le Roi Airmaster gives you more air capacity for less money. You can get an Airmaster that's *exactly right* for size — one that's not too big or too little for the job to be done — one that lets you do the most work at the least cost. That's because Le Roi has the industry's widest range of sizes to choose from.

You're ahead other ways, too: Airmaster's full-pressure system delivers *all*

the air you call for, *when* you call for it. Conservative rating of the Airmaster engine provides ample power reserve — for lower fuel consumption, less maintenance, lower operating costs. Magneto ignition gives you quick, easy starting — saves time — lets you get going faster.

Now, the best way to use the low-cost air produced by Airmaster is to let it power Le Roi-CLEVELAND Air Tools. They're built to really take punishment — and to break more pavement, dig more clay, drill more rock, tamp more fill.

Enjoy Le Roi air-power advantages. Use Le Roi Airmaster and Le Roi-CLEVELAND Air Tools on your next job — and watch costs drop. See your Le Roi distributor. Write for latest bulletins.

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HAMPSHIRE: Manchester — NEW JERSEY: Cranford, Kingston — NEW MEXICO: Albuquerque — NEW YORK: Albany, Binghamton, Buffalo, Long Island City, Newburgh, Rochester, Saugerties, Syracuse, Whitesboro, Woodside (L.I.) — NORTH CAROLINA: Charlotte — OHIO: Cincinnati, Cleveland, Columbus, Dayton, Toledo — OKLAHOMA: Oklahoma City, Tulsa — OREGON: Portland — PENNSYLVANIA: Bethlehem, Harrisburg, Philadelphia, Pittsburgh — RHODE ISLAND: Providence — SOUTH CAROLINA: Columbia — SOUTH DAKOTA: Rapid City, Sioux Falls — TENNESSEE: Chattanooga, Knoxville, Memphis, Nashville — TEXAS: Dallas, El Paso, Houston, Lubbock, San Antonio — UTAH: Salt Lake City — VIRGINIA: Richmond, Roanoke — WASHINGTON: Seattle, Spokane — WEST VIRGINIA: Clarksburg, South Charleston — WISCONSIN: Milwaukee — WYOMING: Casper.



Contractors Hoist Big Tent over Alaska Project to Permit Winter Construction

» THE ever-present problems of intense cold and permafrost have strained the resources of construction men in Alaska for years and heretofore forbade much winter progress. Now the hard-learned techniques developed over the seasons are being pitted against the elements on a new Corps of Engineers power plant project at Ladd Air Force Base near Fairbanks. There, just a short distance south of the Arctic Circle, the joint venture firm of the Green Construction Co., S. Birch & Sons and C. F. Lytle Co. has just completed a tough excavation job and is pouring foundations in spite of the severe cold.

The \$14-million undertaking—construction of a steam power plant extension—required that the contractors excavate an area 200 ft. by 140 ft. and 15 ft. deep. It was necessary to thaw the deep-frozen ground an additional 20 ft. below the low point of the excavation. That phase has been completed and now workers are pouring concrete for a 3-ft.-thick slab of reinforced concrete to cover the same area.

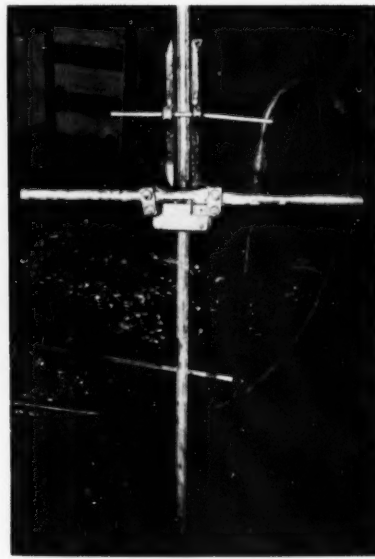
The need to thaw the ground to 35 ft. below grade and then to keep the fresh concrete from freezing are the two problems for which the builders have sought to find solutions.

Some of the rigging by which the huge tent was hoisted over a 140-ft. by 200-ft. excavation for a power plant addition. Suspension cables spaced every 20 ft. under and across the big top are tied to these wench blocks. Right: Another set of cables on 40-ft. centers run the length of the tent and above it. Lifting wires are run up to single-sheave blocks on these cables from a third set of cables under the canvas. In that way, the canvas can be raised or lowered. The main cable seen here goes out of the picture to the right and across a railroad spur to where it is tacked down.

The thawing was accomplished by forcing hot water at 10 to 15 psi. pressure into the ground through well points on jetting pipes. As the ground thawed and permitted it, the pipes were pushed deeper into the earth. Hot water for the operation was supplied by a heat exchanger, a



Under the big tent are dozens of jetting pipes with well points through which hot water was forced into frozen ground. Note 6-in. pipes installed to carry the water through the area.



A probing bar with hammer by which it can be driven down by hand and behind it one of the jetting pipes.

HEAVY • RAILROAD

Looking down on the big tent, one can see the system of cables by which it is hung. Concreting is now proceeding on the job, including pouring of a 3-ft. thick slab.

large chamber in which steam circulated to heat the water pipes. A main feeder line, 11 in. in diameter, carried the water to 6-in. pipes, from whence it flowed into smaller lines and finally into the jetting pipes.

As soon as excavation was completed down to the required 15 ft., a huge specially designed tent was erected over the operation and thawing continued down another 20 ft. The tent, suspended by a complex network of crisscrossing cables, can be raised or lowered to reduce the space to be heated. With such an arrangement, the contractors hope to protect the fresh concrete now being poured, even if the temperature drops to 60 degrees below Fahrenheit. The canvas is strong enough to hold a foot of snow.

The 8,400 sq. ft. of canvas in the tent is hung by three separate cable systems. Underneath the canvas on 40-ft. centers, 1/2-in. cables held taut by hand winches run the width of the tent. Running the length of the canvas are 3/4-in. cables on 20-ft. centers. A third parallel set of cables—1 1/4 in. diameter on 40-ft. centers—is strung above the tent. To these, single-sheave blocks were clamped and lifting wires were strung to them from the intersections of the cables beneath the canvas.

Major share of the concreting will be attempted next month. The contractors hope to pour over 3,000 cu. yds. then in the main slab and portions of the walls. Some of the area's severest weather lies ahead and the next few weeks will prove the practicability of the idea.

The immensity of the program which the proposed Missouri Basin Commission would administer may be realized by noting the Missouri Basin programs of the three most directly involved federal agencies. The Department of Agriculture has conservation plans which would require \$8.5 billion in federal, state and private funds over a 30-year period. The Corps of Engineers has projects underway or proposed costing \$2.7 billion and the Department of Interior has projects authorized or under way which would cost \$4.4 billion.



Top Missouri Basin Commission Proposed

• But Study Group Splits Open Over Federal Domination

» A FIVE-MAN commission to direct federal government resources development in the Missouri River Basin has been proposed by ex-President Truman's Missouri Basin Survey Commission.

The survey group, which has been studying the activities of the Corps of Engineers, the Department of Agriculture and the Department of Interior in that area concluded last month that an overseer commission is needed to coordinate construction plans of these agencies. Such a body would have "broad powers to direct and supervise the federal agencies in carrying out their development responsibilities, thereby making it possible—for the first time in the Missouri Basin—to give unified and coherent direction to the hitherto uncoordinated agency programs," the group said.

The proposed commission would be appointed by the President and would be composed of five residents of the basin, presumably to insure protection of regional interests, and the headquarters offices would be established in the basin for easy accessibility. In addition, an advisory committee of the governors of the 10 states involved would be created.

In practice, the commission would review all the resources development plans of the other federal agencies and analyze them for economic feasibility and their relation to broad objectives. Any proposed construction project in the basin would thus be

passed upon by the commission before going to the President and Congress.

The study group recommending the creation of the commission was composed of Congressmen and representatives of various interests in the 10 basin states. They are Chairman James E. Lawrence, editor of the *Star* (Lincoln, Nebr.); Sen. Thomas C. Hennings, Jr., (D., Mo.); Sen. James E. Murray (D., Mont); Sen. Milton R. Young (R., No. Dak.); Congressman Wayne N. Aspinall (D., Colo.); Congressman Clifford R. Hope (R. Kan.); Congressman James W. Trimble (D., Ark.); Fred V. Heinkel, president, Missouri Farmers Association; Kenneth Holum, farmer, Groton, So. Dak.; H. T. Person, dean of the College of Engineering, University of Wyoming; and Harry J. Peterson, executive secretary of the Minnesota Association of Cooperatives.

Three members of the survey commission dissented from the conclusions of the majority and filed a minority report. In it, Senator Young, Representative Hope and Dean H. T. Person agreed on the need for a coordinating agency but felt that the commission proposed placed too much discretion in federal hands. They asserted that the agency should be established by a compact between the basin states and the federal government and its members selected partially by the states rather than by the President. "The majority . . . apparently regards resource development as wholly a federal function," they said.

It's the Operators'



BEST BY A DAM SITE. Troy Hood and Jack Rank (shown here with Dirt Foreman Sam Crawford) operate TD-24s for Guy H. James, building the great Oahe Dam in South Dakota. Hood says: "I can keep right behind the scrapers—catch 'em sooner and push 'em out faster because TD-24 controls are easier." And Rank chimes in: "Much easier to handle than any other tractor."



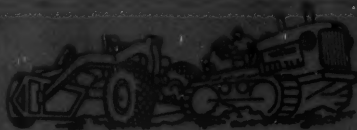
"ALMOST THINKS FOR ITSELF!" That's what Jess Leatherwood says about the Big Red TD-24 he operates for Macon Construction Co., Franklin, N. C. "It pushes more, moves it faster and handles easier than any other crawler I've ever been on."



"WE RIP PLACES YOU'D USUALLY HAVE TO BLAST," says another Macon operator, Roy Cantrell. "We've been working in the Blue Ridge Mountains on rock you couldn't touch with a dozer till the TD-24 came along. Now we blade where we couldn't scratch before, and rip where we used to dynamite!"



"OUR TD-24s REQUIRE LESS SERVICE," says John Tickler, Service Superintendent for John E. Bloomer Construction Co. "These big red machines are very accessible, very easy to maintain. And when we do need help, the International Distributor is always on the job!"



Crawler!



Read what the operators and servicemen say about "Big Red", the International TD-24...



"HOW DO I LIKE 'BIG RED'?" asks George Miller. "Listen: This TD-24 is just the fastest and surest handling tractor there is, that's all! Nothing I've seen can touch it for moving dirt." George and his TD-24 move dirt in North Carolina for Kiker & Yount Construction Co.



"GREATEST THING I'VE SEEN," says Bruce Olson (right), TD-24 operator and Sec.-treas. of G. A. Olson Construction Co., Marshall, Minn. "The TD-24 is the easiest crawler of all to operate. The high-low shift is great for whipping around to the cut after dumping the load. It's the fastest equipment going for anything up to a 3,000-foot cycle!" Man in center is Glen Olson, Bruce's brother and company president. At left is Superintendent Donald Young.

Ask the men who know. Ask the operators. They know that *this* makes "Big Red" the Champ:

TD-24 POWER

148 maximum drawbar horsepower, more than any other crawler on the market.

TD-24 SPEED

Up to 7.8 m.p.h. with 8 forward speeds, 8 reverse. Moves loads faster, gets back quicker for more work-cycles per hour.

TD-24 STEERING

Fingertip control for pivot-turns, feathered-turns and *turns with power on both tracks.*

TD-24 STARTING

Exclusive International push-button starting for quick starts any time in any weather.

Want to know more reasons why the Big Red TD-24 is the work-champ of the world?

Ask your International Industrial Distributor. Ask TD-24 operators. Ask the men who know—and you'll be a TD-24 man yourself from then on in!

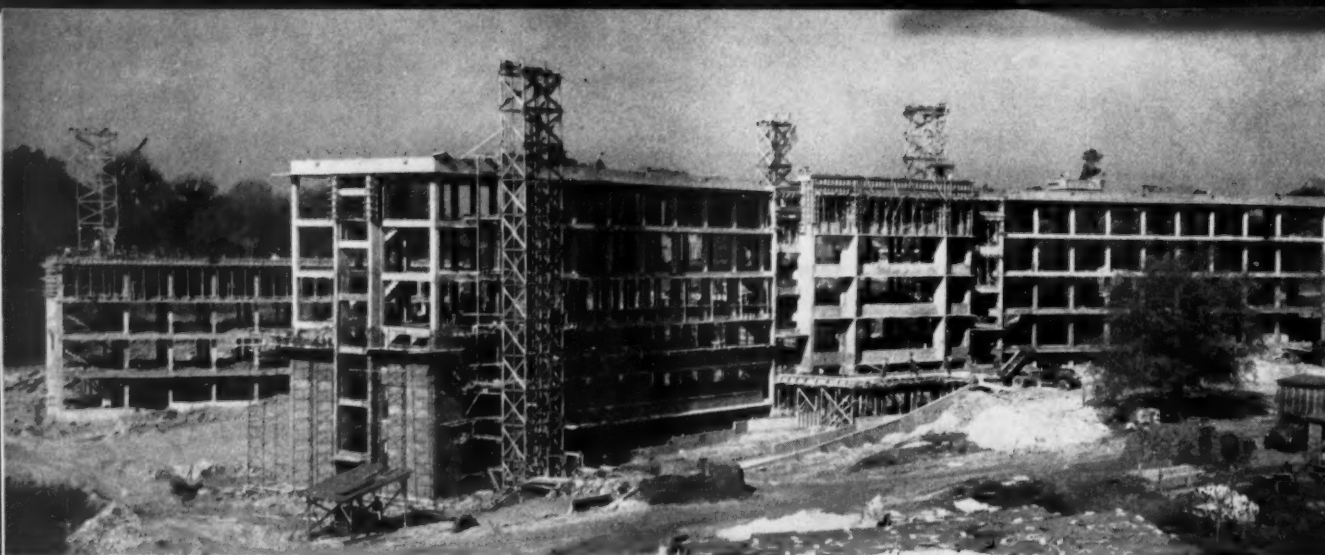
INTERNATIONAL HARVESTER COMPANY, CHICAGO 1, ILLINOIS



INTERNATIONAL

POWER THAT PAYS





Federal Loans Boost College Housing

• \$300-Million Program Expected to Spark New Building Plans

» FRUSTRATED by a succession of restraints, U. S. colleges and universities have found it hard sledding in recent years to undertake a variety of construction needed on many campuses. Inadequate financing has been a handicap of long standing and one which in normal times is a consuming problem in itself. Since the war, other obstacles have stymied some building programs temporarily and blocked others indefinitely. The higher costs of construction and the Controlled Materials Plan have both deferred the normal volume of construction of this type.

A unique federal loan program is proving to be one solution to the college housing problems in a number of

communities. Under the provisions of a 1950 act, Congress authorized \$300 million to the Housing and Home Finance Administration for loan to higher education institutions to build student and faculty accommodations. The program was almost immediately stalled by the Controlled Materials Plan, but administrators of the fund have by now received 145 applications from 41 states for funds totaling \$123 million.

Many of the proposed projects run over a million dollars in estimated cost and some of the structures involved will accommodate almost 700 students. Because frequently funds to supplement the federal loans are raised locally, construction worth

Beers Construction Co., A.G.C., of Atlanta, Ga., is building this \$2-million dormitory for the University of Florida. The structure, which will house 610 students, is being financed by a federal loan under the College Housing Program.

close to \$1 billion may be stimulated by the \$300 million federal assistance.

Contracts for construction must be awarded under competitive bidding. Outside of extending the loan, which runs at 3.01% interest for 40 years, the federal government takes no responsibility for planning or building. Funds cannot be granted if financing is available from private sources under comparable conditions.

At the University of Florida, one of the first institutions to apply for a loan, a \$3-million building program is nearing completion. Rensselaer Polytechnic Institute and Syracuse University in New York and the University of Nebraska are other institutions for which loans topping \$2 million have been approved. Now that construction controls have ended and building materials are easier to obtain, applications are coming in at a faster rate and administrators expect that additional authorizations may be requested from Congress. Because interest on the loans pays administrative costs, the program's chances of survival are good, the U. S. Office of Education believes.

Almost every campus had its rash of temporary buildings during the bulge of veteran enrollments in the late 1940's, but most of those structures are outwearing their usefulness even though high enrollment has forced their continued use. The next enrollment bulge, although not due for six or seven years, is already worrying administrators. About 2.4 million students are currently enrolled; the number is expected to swell to 3 million by then.



Marquette University's new \$1.2-million residence hall for women students is being constructed by the Siesel Contracting Co., A.G.C., Milwaukee, for 350 co-eds.

BUILDING

Building on Sand Foundation

The first large plant in the U. S. to be built on sand compacted by the unique Vibroflotation method is nearly completed and the builder reports no measurable settlement as yet.

The \$12-million Bonnie Phosphate Chemicals plant near Bartow, Fla., is being built by the Rust Engineering Co., A.G.C., Pittsburgh, on dry waste-land sands with no support other than the sand itself. Key to apparent success of the venture is use of a new sand compaction process, adopted because pilings would be more expensive and less stable on the site.

The Vibroflotation process increases the relative density of sandy soil through a shaking and pushing process that packs the sand grains more closely together and reduces the voids between particles. The result is a solid sand mass upon which structures can be erected.

The device used is a tube which is vibrated by an electrically driven eccentric inside it. A 10-ton centrifugal force is produced. This apparatus is attached to a follow-up pipe which houses required water and electric lines.

In operation, the Vibroflot is suspended from a crane and guided by vertical wooden leads. Vibrating at full speed, it is lowered into the sand while a water jet at its tip forms a saturated sand mass into which the vibrator rapidly sinks.

Lowered to about 13 ft., the device vibrates the sand into a tighter mass on all sides and fresh sand is shoveled in from above to fill the extra space. It is withdrawn in stages. The result is a tightly compacted sand column about 9 ft. in diameter. The columns are pounded in pre-determined overlapping pattern with about 8 ft. between centers.

The complete compaction at the Bonnie plant took two crews 160 days for some 3,350 compactions. No measurable settlement has been found of the first structure completed six months ago. Advance estimates had allowed for a maximum settlement here on the order of 1 in.

Rust Engineering, which holds the franchise on the process, sees a future for the technique in construction of earth dams, cofferdams, and airport construction in sandy areas, as well as heavy industrial plants with vibrating equipment.

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or almost anything else!

On floor, walls, columns, piers or anywhere else that concrete is used - - you can bond *new* concrete to *old*, or one pour to another, with a bond that is stronger than the concrete itself!

WELD-CRETE is a new bonding agent thoroughly tested by some of the most skeptical outfits in the construction field. It successfully accomplishes what nothing ever has been able to do before.

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It'll be there to stay - - a bond that is permanent . . . ageless . . . unbreakable for all time to come.

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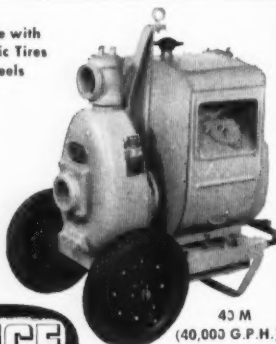


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Taft-Hartley Law Amendments

A summary of testimony heard in Congressional hearings being held on the Taft-Hartley law is carried on Page 34.

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BUILDING

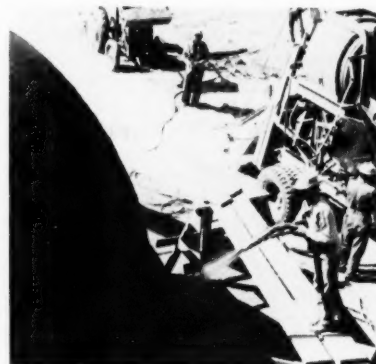


Concrete "Igloo" Built over Inflated Balloon

Concrete "igloos" for use as farm storage buildings are being built by unusual methods on Goodyear Farms in Arizona. A huge rubber balloon is inflated with an air compressor and a metal reinforcing frame then formed around it. Concrete is blown onto the frame through a 4-in. hose while water is driven through a smaller hose at a slightly faster rate.

Building Construction Notes

- New York's City Housing Authority has been directed to proceed with nine projects costing \$147 million and providing 9,840 apartments for 35,000 people. Five will be slum clearance developments.
- Legal technicalities preventing construction of a new \$22-million hospital in Fulton County, Ga., has been overcome by state legislative action.
- New Jersey has appropriated \$25 million for further construction and renovation of state institutions.
- The Senate last month appropriated another \$20.5 million for schools in "federally-affected areas," where federal defense activities have drawn a greater school population than local governments can provide for. The government has spent nearly half a billion dollars for construction and operation of schools in 588 such areas thus far.
- Almost \$25-billion worth of industrial construction and equipment has been made possible by the federal government's certificates of necessity to date. The 15,660 new or expanded facilities were approved to increase private industry's productive capacity to meet mobilization goals.



The result is a strong, well-insulated storage building, 29 ft. in diameter and 14½ ft. high, which can be built for less than \$3,400. That figure includes a concreted pit, dug 9 ft. below the surface for extra space. Architect Wallace Neff is designer.



CALL IT LUCK

But once in a while a man has the privilege of being present when the curtain is pulled aside for a moment. He is granted the opportunity of visioning a better way of doing something. If—through his ingenuity—he can translate this vision in terms and materials that benefit mankind, they call him a genius, an inventor or an industrialist.

It was thirty years ago that the curtain parted and the original open web bar joist was conceived and placed in volume production by Stanley Macomber. It is rather unique that the founding of this industry—the inception of every stabilizing development and each of the basic improvements through the years came from the original well of inspiration.

Today, this floor joist and roof purlin designed to replace wood as a secondary load bearing member with the strength of steel has a nail gripping power $2\frac{1}{2}$ times that of good construction lumber. A gripping power that cannot dry out and lose its grip on nails. A barrier against fire wherever humans occupy the floors above. A structural member—ready to erect—easy to pass service lines through, saving dollars of time, labor and concrete on every job. This catalog takes it from there.

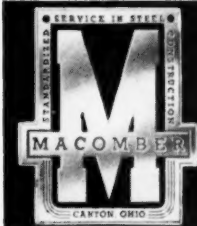
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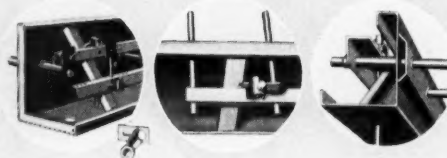


Heltzel Combines Two Standard Forms To Simplify Handling • Reduce Inventory

If your business calls for multiple form sizes you'll want to know about the HELTZEL DUAL-DUTY FORM. Here are two individual form heights combined into a single form section. Simply turn it on its side and you have the second height. Latest form designs lend themselves to this arrangement naturally—providing lower initial purchasing costs and greatly reducing inventory problems.

The forming of the second rail on each form section greatly strengthens the section—assuring longer life. What's more, every DUAL-DUTY carries all the normal Heltzel features so popular with contractors today: corner-to-corner bracing—formed stake pockets; single, sure-bind wedging that eliminates counter thrust of a second wedge—and re-rolled rail stakes, heat-hardened and sharpened to penetrate toughest rock conditions, assuring firm grip and perfect form alignment.

Before you buy be sure to look over the one complete line of standard and special sidewalk, road, curbing and airport forms designed and built by the HELTZEL STEEL FORM AND IRON CO., WARREN, OHIO. Send for additional literature. Representatives throughout the world.



Three integral form devices, exclusive with Heltzel, can be readily adapted to Dual Duty Form for jobs calling for doweling. Field tested, these methods assure accurate alignment, fast handling and easy stripping. Others engineered upon request.

Naturally It's A



» **CONTRACTORS** are too unhappily familiar with the cost and irritations of delays. Delays caused by poor weather and equipment breakdowns rank high among the problems that are unforeseen on the sunny day the bid is made. No one seems to know exactly how costly they actually are in terms of time and money. Penalties assessed against contractors on big jobs run to hundreds of dollars per day for failure to complete on time. But the threat hangs over every job—large or small.

Now, for the first time and after five years of study, a complete report on the nature and extent of delays has been revealed by the Bureau of Public Roads. During that time bureau engineers with stop watches clocked the lost time contractors suffered on various types of highway construction. The minutes and hours total up to surprising proportions.

140 Typical Jobs Observed

The construction jobs observed were selected largely at random and, according to the bureau, "are reasonably typical of conditions that might be expected on primary road construction in rural areas." The studies were concluded in most states on approximately 140 separate highway jobs, for periods of about three weeks each, during the active highway construction season.

The bureau found, for example, on the series of jobs it studied that construction operations were suspended for nearly 20% of the normally scheduled working time because of poor weather conditions.

It was found that key units of construction equipment—such as power

Delays Run High on Road Jobs, BPR Finds

• Five-Year Study Reveals Inefficiencies in Equipment Use

shovels, scrapers, pavers, and asphalt plants—were in action only about 58% of the total available working time, the time left after weather delays. The remaining 42% of the time was lost in various kinds of interruptions, nearly half of which were minor delays of less than 15 minutes each in duration. (In a sample of 20 typical projects, the average individual minor delay was only about 50 seconds.)

Minor Delays Are Costly

Fred B. Farrell, chief of the bureau's Highway Cost Section, reported the study before a meeting of the Highway Research Board recently. He pointed out that the effect of minor delays cannot be slighted. "Even on the best-managed jobs these small delays take their toll of lost production. Although many of them can be measured only by a stop-watch, their cumulative effect may well be the difference between making or losing money by the contractor.

"When these small delays are incurred, the job ordinarily is in operation with its full complement of men and equipment and going expenses are at a maximum. It is during this time, also, that all operations on a job must be coordinated to the fullest extent in order to get the greatest possible production. Effectiveness of job management pays its largest dividends during these periods."

Many Delays Over 15 Minutes

The bureau's observers found that longer delays of 15 minutes or more accounted for over half of all lost

time on the average job. It is true, Mr. Farrell pointed out, that on many of the major delays the job can be shut down temporarily to minimize costs. Even so, detours must be maintained, overhead continues, demurrage charges pile up and labor becomes dissatisfied.

Comparison of Contractors

The bureau found wide disparity between contractors suffering much lost time because of equipment delays and those sustaining steadier production. To compare them, the research engineers set aside the records on five jobs with the least delays (Group A) and five jobs with the most delays (Group B). These were analyzed for relative efficiency with various types of equipment and a determination was made of the per cent of available working time which was non-productive because of equipment delays.

Percentage of Time Lost

Equipment	Group A	Group B
Asphalt plants	27%	66%
Dual drum pavers	32%	50%
Power shovels	29%	62%
Scrapers, crawler tractor-drawn	12%	39%
Scrapers, rubber-tired tractor drawn	23%	53%

(Continued on next page)

Equipment management—the science of keeping machinery operating at peak efficiency—is a measure of efficiency among highway contractors. Downtime for the big rigs is a dollars-and-cents proposition.



Other things being equal, the agency feels that such a comparison reflects roughly the efficiency or inefficiency of these contractors as equipment managers. The spread in the extent of delays suggests that there is opportunity on many jobs to make improvement. Some idea of where and how contractors can get more out of their machines may be learned by studying

the results of the bureau's observations.

Asphalt Plants Studied

It was found in the bureau's observation of asphalt plant operation that it is theoretically possible to cut downtime in half, as demonstrated by the contractors of Group A compared to those on Group B projects. On Group

A jobs, delays took 27% of the working time, but on Group B projects, the lost time ran more than twice as high—66%.

The bureau declined to interpret the wide difference but re-emphasized that observations extended over a three-week period and that during that time, asphalt plants on Group B projects were actually out of operation 66% of the working time.

Poor Planning of Repairs Seen

Some specific comparisons reveal that maintenance and repair spelled a significant difference between well-run and inefficiently operated asphalt plants. *Down-time for Group B contractors amounted to five times that of Group A.* This might indicate, not only better planning of repairs and maintenance, but the use of mechanically better equipment.

Waiting on the dryer to dry the aggregate also accounted for considerable more lost time on Group B than on Group A projects.

"Although it usually works almost continuously to keep the plant in operation," the bureau found, "the capacity of the dryer is a significant factor affecting production on many plant set-ups. To overcome this situation many contractors have modified original dryer equipment or added secondary dryer units to the plant."

Delays incurred while the plant awaited asphalt also varied greatly between contractors. Some were able to eliminate such hold-ups to the point where they consumed only a short time; on Group B projects, they ate up 8% of the plant's working time.

Hauling Operation Is Tricky

On both Group A and the Group B projects, there were substantial delays because of a lack of hauling units. Here is admittedly one of the critical balances difficult to maintain on a construction operation. The length and condition of the haul road, the mechanical condition of the trucks, the ability of the drivers and numerous other factors might be improved to help eliminate delays at the asphalt plant caused by an inadequate hauling operation. Every different set of conditions requires striking a different balance between plant capacity and hauling capacity.

"Portland cement concrete paving jobs afford wide opportunity for the exercise of good management practices," the public roads investigators (Continued on page 67)

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**FULL CIRCULATING SPRAY BAR
GIVES UNIFORM SPREAD OF MATERIAL
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ONE drill steel serves two purposes when you use Timken® interchangeable rock bits. That's because both Timken multi-use and Timken carbide insert bits fit the same threaded drill steel! Drillers can quickly switch from one bit type to another as the ground changes—right on the job!

Use Timken multi-use bits for ordinary ground. When correctly controlled and reconditioned, they'll give you the lowest cost per foot of hole when full increments of steel can be drilled.

It's easy to make a quick switch to Timken carbide insert bits when you hit hard or abrasive ground. They're your best bet for maximum speed drilling, small diameter blast holes, very deep holes and constant gage holes.

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And each type has these three important advantages: (1) made from electric furnace Timken fine alloy steel, (2) threads are not subject to drilling impact because of the special shoulder union developed by the Timken Company, (3) quickly and easily changed.

Call upon the 20-years' experience of our Rock Bit Engineering Service for help in selecting the best bits for *your* job. Write The Timken Roller Bearing Company, Canton 6, Ohio. Cable address: "TIMROSCO".

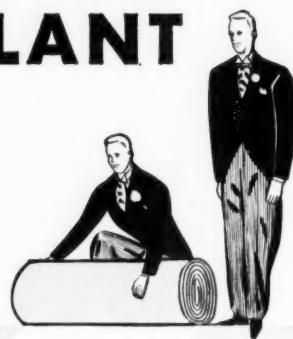
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Contractors prefer BUTLER, too. They know that costs will stay safely on the sunny side and BUTLER "ahead-of-schedule" production will more than compensate for the rainy days.

So, lay that slab down like the white carpet at a church wedding. And smile at the profit a BUTLER Roadbuilder Plant will bring you when the job is finished.

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HIGHWAYS • AIRPORTS

(Continued from page 64)

found. "Some contractors have developed the integration of the numerous processes involved to a remarkable degree; others are continually running into headaches from which there seems to be no relief."

Dual-Drum Pavers Observed

Comparison of the Group A with the Group B projects, using one dual-drum paver, reveals that the 32% of the working time of these machines was lost on Group A jobs and 50% lost on Group B jobs.

Two of the principal causes of delays on the Group B jobs were associated with the batch trucks. It is common practice to provide a slight surplus of batch trucks in order to minimize as much as possible the delays caused by lack of material at the paver. Group A jobs usually had from two to three batch trucks waiting in line at the paver, but on Group B jobs the number of waiting trucks at the paver averaged from one to two and a half. Consequently, the lost time for Group A was only 4% compared to 10% of available working time lost by Group B for this reason.

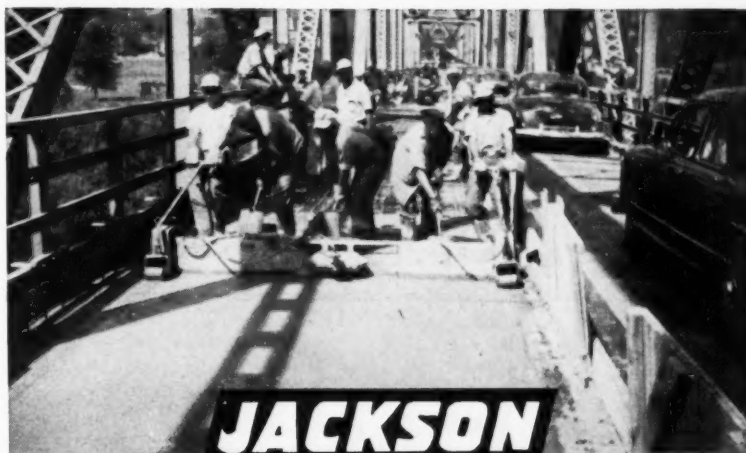
Extra Truck Cuts Delays

"The extra margin of safety realized by the additional truck at the paver site is an important factor contributing to the difference in delays to the paver . . . particularly under conditions where trucks tend to be temporarily delayed or 'bunched up' elsewhere than at the paver," the observers reported.

"Excessive and constantly recurring delays caused by slow backing

Lost Time with 2 Pavers

Studies were also made on five jobs where two dual-drum-pavers were operated simultaneously at the same site. Such jobs require a high degree of co-ordination because of the potentially high production rate involved. Delays on these jobs amounted to 52% of the available time and closely paralleled those, both in type and amount, of Group B jobs using one dual-drum paver. The most significant difference was in time losses due to shortages of materials (principally cement), which came to about 7% of the available time for the two-paver jobs as compared with 3% of the Group B jobs using one dual-drum paver.



HANDIEST and MOST PRODUCTIVE SCREED on the MARKET!

For the tight spots or just straight-away paving you will find the Jackson Electric Vibratory Screed the fastest, most convenient and efficient screed you have ever used. It strikes off to any crown, undercuts at curb or sideform, works up to and around all obstructions. It permits pouring slabs up to 30' without center joint. Requires only two men on widest slab and is the only screed that can be rolled back for second passes on 4 rollers. Powered by Jackson Portable Power Plant. For rent or for sale at your Jackson Distributor. Details on request.

A FASTER, MORE POWERFUL JACKSON COMPACTOR

Now vastly more powerful, this vibratory self-propelled, machine will compact bituminous mixes close to maximum density at the rate of 2400 sq. ft. per hour. Operated from a Jackson Power Plant mounted on auto trailer with quick-pickup of Compactor, it is highly mobile and a tremendous time-and-money saver on jobs such as indicated at the left. Quickly achieves maximum density in granular soils. Available with quickly interchangeable bases of 12" to 24". See your Jackson Distributor or write for details.

**FOR QUICK
CONVENIENT
COMPACTION
of BLACKTOP
in HIGHWAY
WIDENING
& PATCHING
... DRIVES,
WALKS.
GRANULAR SOILS.**

**JACKSON
VIBRATORS**

**INC.
LUDINGTON, MICH.**



of the batch trucks onto the paver skip, or in discharging the batch into the skip, are largely unwarranted. The coaching of truck drivers or the hiring of a capable dump man (or spotter) to direct the batch trucks in their backing and dumping operations at the skip will pay dividends in keeping delays from such causes to a minimum."

Delays in Shovel Operation

Power shovels, ranging in size from

1¼ to 2½ cu. yds., experience numerous delays and are subject to considerable lost time for repairs unless careful maintenance is followed. Shovels on the Group A projects lost 29% of the available working time because of delays for repairs, insufficient hauling units and various other reasons. In comparison, power shovels on Group B jobs were delayed 62% of their available working time.

The significant difference between the 29% lost time on some jobs and

the 62% lost on other jobs was mostly because of down-time for repairs and maintenance. Most of the Group B jobs had some hard digging in ledge rock, shale and blasted rock. The bureau believes that the thoroughness of a contractor's blasting can prevent a number of shovel breakdowns. "Evidence of this fact is that one of the shovels with the least amount of delays in Group A was one which worked in well-blasted limestone," the report states.

Appreciable amounts of time were lost on both classes of jobs because of apparent lack of hauling units. The simple expedient would seem to be the addition of more trucks, but it was found that it is difficult to maintain a delicate balance between the shovel operation and the hauling operation.

What frequently seems to happen is that there are too few trucks to keep the shovel operating at full speed or there are so many trucks they are forced to lose time in waiting for the shovel. "The problem resolves itself, therefore, into an economic one of determining the amount of hauling equipment consistent with high shovel production that will result in the lowest unit cost under any given set of conditions," the bureau concludes.

Scrapers Have Least Delays

Although as a rule, crawler tractor-drawn scrapers were found to experience the fewest delays, a general loss of 31% of their working time was reported. As with other equipment, the vast difference between the number and extent of delays on similar jobs indicated the care and timing of repairs which contractors gave their scrapers. Group A lost only 12% of the available working time of its scrapers; Group B lost 39%. The major problem, as in other types of equipment, was maintenance and repair. Group A scrapers lost 6% of working time for this reason while Group B had 26% down-time for repairs and maintenance.

Scrapers drawn by rubber-tired tractors were subject to about the same degree of maintenance and repair delays as those drawn by crawler tractors. In practically all cases, however, a pusher is a "must" for insuring satisfactory performance, the bureau asserts, and it found an additional 10% of the machine's working time is lost while waiting for a pusher. A pusher can ordinarily assist in 24 scraper loadings per hour.

CENTRAL SURETY AND INSURANCE CORPORATION

Condensed Financial Statement

December 31, 1952



ASSETS

A <i>Multiple Line Company</i>	Cash (in Banks and Offices).....	\$ 1,431,105.29
	Bonds:	
	U. S. Government.....	\$5,590,254.58
	State, County and Municipal.....	9,778,920.65
	Federal Banks.....	55,000.00
	Public Utilities.....	4,500.00
		15,428,675.23
	Stocks:	
	Public Utilities.....	495,933.63
	Banks.....	66,970.00
CENTRAL SURETY Protection is written through Licensed Agents and Brokers Only	Central Surety Fire Corporation..	621,005.18
	Industrial and Miscellaneous.....	107,616.50
		1,291,525.31
	Total Cash and Invested Assets.....	\$18,151,305.83
	Premiums in Course of Collection.....	1,527,787.90
	Accrued Interest on Investments.....	92,531.35
	Other Assets.....	68,507.71
	TOTAL ADMITTED ASSETS.....	\$19,840,132.79

LIABILITIES

Reserve for Claims and Losses.....	\$6,844,874.38
Reserve for Unearned Premiums.....	6,544,764.72
Total Claim, Loss and Premium Reserves.....	\$13,389,639.10
Reserve for Taxes and Other Liabilities.....	659,751.59
Total Reserves.....	\$14,049,390.69
Capital.....	\$2,000,000.00
Surplus.....	3,790,742.10
Surplus to Policyholders.....	\$ 5,790,742.10
TOTAL.....	\$19,840,132.79

Securities carried at \$1,302,139.28 in the above statement are deposited for purposes required by law.

Bonds are carried at amortized values. No Bonds were in default either as to principal or interest at December 31, 1952.

*It's Wise
to
Centralize*

HOME OFFICE, KANSAS CITY, MISSOURI

R. E. MCGINNIS, President

LeTourneau pictures of the month . . .



NEW HOLLYWOOD STARS — Maybe these C Tournapulls aren't as pretty as a movie queen, but Contractor Perry Tomei is pleased with their Hollywood work. Building the new 360,000-yd Freeway section from downtown Los Angeles through the movie capital, the "C's" did the job better and

quicker than tractors and scrapers could, according to Contractor Tomei. Despite heavy traffic, cramped quarters, rocky material and 10 to 24% grades, the 4 "C's" removed 384 pay yds hourly on average 2300-ft cycles. Each machine carried 12 pay yds per load, delivered an average of 8 loads per 55-minute hour.



"TOUGHEST TUNNEL" — Halfway into a 3226-ft tunnel for B & O RR, Chicago Contractors Bates & Rogers struck an abandoned coal mine. Resulting complications turned their routine job into "one of the toughest RR tunnels ever built." Their 10-yd Tournarockers, with 12¾-ft turn radius, were only haulers that could turn 180° non-stop and maneuver in the 31-ft-wide passage. Same size trucks had to be turned on a skid plate.



PULLS 50-TON COMPACTOR — 186 hp Tournatractor tows 50-ton compactor on Grumman Aircraft's new \$25 million Peconic River Plant on Long Island, NY. Compactor was used to stabilize sub-base of runways and taxiways being built on part of the 4,700-acre project. Traveling between jobs, tractor often hit 19 mph. Photo of L. G. Defelice units courtesy Constructioner magazine.



Continued on next right-hand page . . .



LUBRIPLATE No 630-AA IS PRACTICALLY A UNIVERSAL LUBRICANT

—says
THE SPOKANE PORTLAND CEMENT CO.

"With the introduction of LUBRIPLATE No. 630-AA, we were able to satisfy all our needs for solid type lubricants with only two LUBRIPLATE Products. LUBRIPLATE No. 630-AA might almost be considered a universal lubricant. Furthermore, it has effected marked savings in both lubricants and labor!"

For nearest LUBRIPLATE distributor, see Classified Telephone Directory. Send for free 56-page "LUBRIPLATE DATA BOOK"... a valuable treatise on lubrication. Write LUBRIPLATE DIVISION, Fiske Brothers Refining Co., Newark 5, N. J. or Toledo 5, Ohio.

**REGARDLESS OF THE SIZE
AND TYPE OF YOUR MACHIN-
ERY, LUBRIPLATE
LUBRICANTS WILL IMPROVE
ITS OPERATION AND REDUCE
MAINTENANCE COSTS.**



EQUIPMENT

Equipment Dealers Plot Industry Goals

- Maddock Asks Consideration for Contractor in Sales Terms

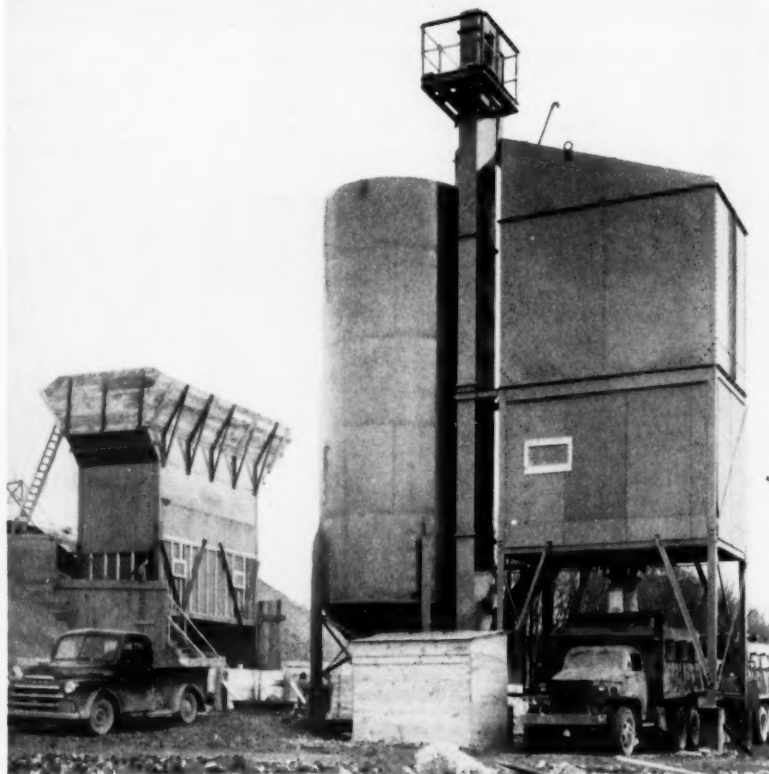


Newly elected Executive Committee of the A.E.D. includes (left to right): Vice President R. J. Finn of Cincinnati, Vice President George W. Gagel of Kansas City, Mo., President S. John Oechsle of Philadelphia, Executive Vice President Frank Skidmore of Albuquerque, Executive Secretary P. D. Hermann of Chicago and Vice President J. W. Halls of Montreal, Canada.

» ABOUT 2,800 American and Canadian construction equipment manufacturers and distributors met in Chicago last month to discuss industry business under the auspices of the Associated Equipment Distributors.

The A. E. D. members heard their

Washington representative, Joseph T. King, warn that they, like other businessmen, must help bring about a successful administration and economy in national government. Reporting the recent request of the Bureau of the Budget that all agencies review



The first fully automatic, electronically controlled batching plants ever built are now delivering the first batches of concrete for the new Ohio Turnpike. Designed and built by the Heltzel Steel Form and Iron Co. of Warren, Ohio, the plants will batch up to 250 yds. per hour. About 13 million yds. of concrete will be required for the 241-mi. super-highway.

LeTourneau pictures of the month (cont'd.) . . .



JUNGLE-BUSTER — Carving mile-long railroad right-of-way near Chandi, India, Tournatractor quickly clears tangled jungle undergrowth and removes trees for the Great Indian Peninsular RR. Fast 186 hp rig also stripped topsoil, did rough grading. Rocky ground did no damage to big 21.00 x 25 tires.



TOUGH ROPE UPS OUTPUT — Instant dump of Tournarocker, hoist of excavators, lift of cranes, churn of drills, depends on tough, long-lasting wire rope. No other rope stands up quite as well as Tournarope, say many contractors. Tournarope has 7% shorter lay, flatter twist . . . in its 1/2-in. size, contains 35 lbs more steel per 1000 ft than most other ropes.



SAVES \$149,000 — Entire excavation for 7000-ft sewer trench to Pentagon Building, Washington, was handled by 2 D Tournapulls. Rigs cut 25-ft deep, hauled and spread material away from trench to eliminate sheathing. Estimated saving over use of big draglines (according to Contractor M. J. Bles), \$149,000.



480 YARDS HOURLY — Relocating Willamette Forest Hwy (State 222) near Detroit Dam in Oregon was a scenic, though rugged, job. With the mountain beauty to inspire them,

J. W. Briggs' men and their 3 C Tournapulls moved 254,800-yds of gravel, rock, and boulders over 1200 to 7800-ft cycles. On typical 1300-ft cycle, 3 units averaged 40 trips, 480 pay yds hourly.

Continued on next right-hand page . . .

Important savings

in insurance costs,
sharp reduction of
crippling injuries,
safer and smoother
production, upswing
in employee morale
—and, of course, topflight handling
of claims! . . . Cooperation with their
Employers Mutuals Team has given
all these benefits to thousands of our
policyholder-owners.
*This teamwork can
help your business!*



The Employers Mutuals Team

EMPLOYERS MUTUALS *of* WAUSAU

Home Office: Wausau, Wisconsin

Offices in principal cities...Consult your telephone directory

Employers Mutuals write: Workmen's Compensation-Public Liability-Automobile-Group Health and Accident-Burglary-Plate Glass-Fidelity Bonds-and other casualty insurance. Fire-Extended Coverage-Inland Marine-and allied lines. All policies are nonassessable.



EMPLOYERS MUTUAL LIABILITY INSURANCE COMPANY OF WISCONSIN
EMPLOYERS MUTUAL FIRE INSURANCE COMPANY

EQUIPMENT

their construction projects, Mr. King said that the construction industry must be prepared to sustain economy measures.

"If you are not going to accept your cut right along with the other cuts that are going to be imposed on other interests, then the Administration will fail in its efforts," he admonished.

Good Equipment Supply Predicted

S. D. Maddock, president of C.I.T. Corp., told the delegates that the construction equipment business is expected to continue on the current level and that the supply will increase as materials become more available. He gave the distributors candid advice on dealing with contractors, especially to recognize the financial limitations of their customers. He said that any financial arrangement for purchase of equipment should be based on realistic rates of payment.

"Remember," he said, "contractors are having a hard time in their financing these days. They have to provide money to pay for heavy-duty, high-priced equipment and have to provide money to run a high-cost job. At the same time, their financial statement must be sufficiently liquid to qualify for bidding and to enable them to make bond. Too much short term debt is a definite handicap and is one of the principal reasons for failures among contractors. Put that down in your book and remember it."

Don't Ask Too Much Cash Down

"It is a fact that many contractors have made the error . . . of paying out their own cash for equipment only to discover later that they needed that cash to run their jobs, or using too high a portion of their available bank (credit) to pay cash for the equipment (and let me add, doing that often at the urging of some of you gentlemen) only to find that their bank credit was not available when they desperately needed it to meet payrolls. . . . There is no use putting the contractor in that position, gentlemen," Mr. Maddock counseled.

He warned the distributors against yielding to requests "to dress up as a lease what is in fact a conditional sale." Such requests are made by a customer, he said, to avoid making the usual down payment, to improve his financial statement for bidding and bonding purposes, or to be able to treat the rental payment in its entirety in the hope of winning tax advantages.

LeTourneau pictures of the month (cont'd.) . . .



15 MI. IN 88 MIN — To answer hurry-up call for fill, Taylor Bros loaded their D Tournapull with sand, then drove it 1.9 miles through heavy city traffic. In 10 minutes, unit had delivered first load. In 88 minutes, it had made 4 trips, driven 15 miles through traffic, brought in 18 cu yds of sand. Says Owner John Taylor, Birmingham, Mich, "D Tournapull is the most valuable dirtmoving machine made today for the municipal contractor."



CLEAN OVER-EDGE DUMP — With front-wheel drive, Tournarocker backs safely to edge of bank. Loads fall free and fast. Little or no dump clean-up is required. Says Red Parrot Coal Co Supt F. Mason Morgan, user of unit shown, "Tournarocker works better than any rubber-tired equipment we've used."



MORE THAN 1 WAY — When not needed for scraper work, J. W. Crowder, Houston, uses his C Tournapulls to haul from a dragline. Here, rig gets heaped load of tightly-compacted gumbo on dam and spillway construction job along the Sabine River in Texas. Rig made 2000' cycle in 3½ minutes.



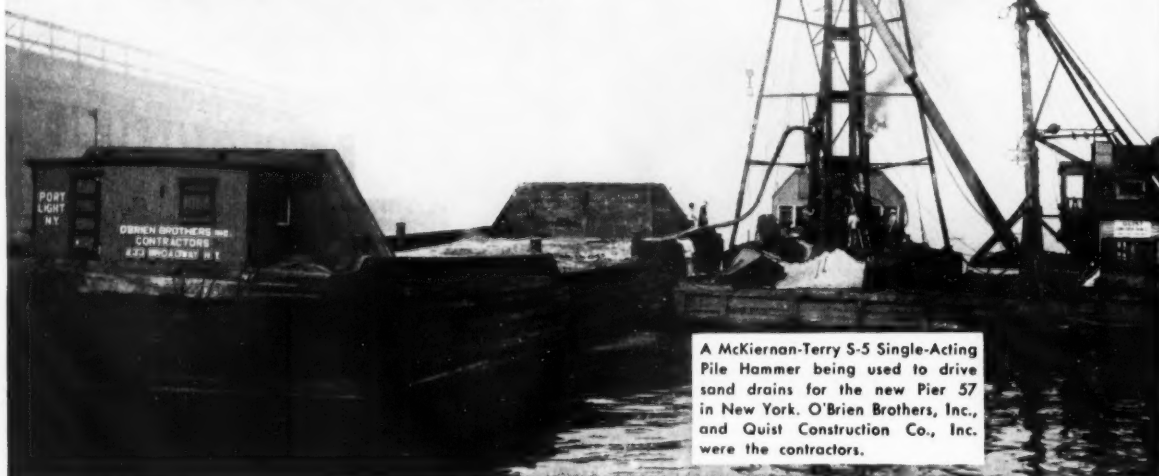
PIPELAYING IN ISRAEL — Tournatractor with electric side-boom crane speeds pipelaying for vital land development near Tel Aviv. Unit carefully positions 14-ton, 60-ft section of pipe — a part of Jerusalem's first fresh-water aqueduct system. Working several yds from ditch

to avoid cave-in, crane easily lifts 6 tons to a full 12 ft . . . raises, lowers load while moving forward or back. Mekoroth Water Co, owners, replaced 8 crawlers with 4 Tournatractors. For full information on this or other equipment shown, contact R. G. LeTOURNEAU, INC., Peoria, Ill.



Tournapull, Tournarocker, Tournarope — Trademark Reg. U. S. Pat. Off. Tournatractor — Trademark Pic. 336-C

How
McKIERNAN-TERRY
equipment
helped this unusual
pier construction job



A McKiernan-Terry S-5 Single-Acting Pile Hammer being used to drive sand drains for the new Pier 57 in New York. O'Brien Brothers, Inc., and Quist Construction Co., Inc. were the contractors.

New York's new Pier 57 consists of 3 huge reinforced concrete boxes, weighing a total of 73,000 tons. These massive supports were built 38 miles away, floated down the Hudson River to the pier site, and then placed in position.

The load of the assembled pier is largely carried by the buoyancy of these concrete boxes, which rest on a gravel blanket. Under this blanket, the river silt has been stabilized by 304 sand drains, and anchored by piles which serve as dowels.

The sand drains and the timber piles were driven by McKiernan-Terry 10-B-3 Double-Acting and

S-5 Single-Acting Pile Hammers. Many difficulties were encountered on the job, due to the hard sub-soil close to shore and interference from the wooden piles which had supported the old pier. However, the powerful McKiernan-Terry Pile Hammers met every demand . . . one more instance of how the reliance of contractors on McKiernan-Terry equipment is fully justified.

Write for full information on McKiernan-Terry Pile Hammers and the application of McKiernan-Terry equipment to sand drain soil stabilization.

OTHER McKIERNAN-TERRY PRODUCTS



MEAD-MORRISON COAL AND ORE UNLOADERS AND BRIDGES
 Available in a variety of designs and in capacities of 300 to 1500 tons per hour. Exceptional durability proven by installations in service for half a century. Simple controls afford convenient, comfortable and speedy operation.



GRAB BUCKETS
 Range of types and sizes take bulk materials loads up to 25 tons. Ruggedness without excess weight.



HONING UP TO 42-IN. I.D. X 55-FT. LONG
 Typical of the extensive facilities of McKiernan-Terry for unusual jobs.



McKIERNAN-TERRY CORPORATION • MANUFACTURING ENGINEERS • 18 PARK ROW, NEW YORK 38, N. Y.
Plants: Harrison, N. J. and Dover, N. J.

MK326

Corpus Christi Safety School is Success

• Officials Praise A.G.C.-Sponsored Classes at Del Mar College

» LAST MONTH the South Texas Chapter, A.G.C., successfully conducted a safety school for general contractors, architects, foremen, journeymen and apprentices in an effort to reduce construction accidents in the Corpus Christi area.

Attendance was considered good and reaction from those who participated was said to be "excellent."

Some 140 persons registered in advance for evening classes held at the Del Mar College. Approximately 120 attended the first two-hour session Jan. 27; with 90 persons at the second meeting, Feb. 3; and 85 present at the last class on Feb. 10. Ted Boaz, of the college, presented attendance certificates to some 60 persons present who were at all three meetings.

Col. Goldston, Chairman

Col. W. M. Goldston, chairman of the chapter committee on safety, organized the school and spoke at its first meeting. He was followed by Joseph P. Gibbs, former Casualty Insurance Commissioner of Texas who reviewed the history of the state workmen's compensation law. He told them how the law operated and how it affected construction costs.

J. D. Wheeler, director of the workmen's compensation section of the Texas Board of Insurance Commissioners, attended the meeting and

answered questions on present regulations.

The second class was divided into two sections with the first hour devoted to "Management Views Safety" and the last hour devoted to "Employees View Safety."

In the first hour Col. Goldston discussed safety problems of heavy contractors; Frank Wettstein, safety engineer for C. F. Braun & Co., discussed safety problems of building contractors and Joseph Hall, Secretary-Hall Co., discussed the subcontractors' safety problems.

W. C. Echols, of the carpenters local union, led a panel discussion during the second hour. Other panel members included John B. Kirton, ironworkers; John Sorenson, executive secretary of the local Building Trades Council; W. A. Albright, operating engineers; and E. C. Martin, Jr., of the lathers local union.

Speaking at the last session of the school, Curtis Bell, chapter managing director, told the group that the chapter considers the project a "real success" and a good start toward a more active safety campaign in the Corpus Christi area.

Later Mr. Bell added that the chapter will continue to make its safety program work to interest employers in starting a safety program in their own organizations.

BLS Reports on Plumbing Injury Survey

» PLUMBING, one of the safest jobs in construction, still has an injury rate nearly double that of all manufacturing industries, the Bureau of Labor Statistics reported recently.

In 1950, the injury frequency rate of plumbing, heating and air-conditioning workers ran at 28.5 per million man-hours worked, a slight improvement over the 1948-49 rates. For all types of manufacturing the injury rate was 14.7 in 1950, just over half the plumbing rate.

During the same year the injury rate for all construction stood at 41 per million man-hours worked, considerably higher than the rate for plumbers.

Further data on the general subject is contained in a booklet published

recently by the Bureau entitled "Injuries and Accident Causes in Plumbing Operations."

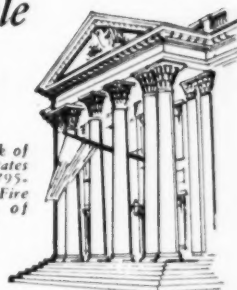
The booklet is a detailed analysis of accidents experienced by plumbers during 1948 and 1949. Data from the 1948 study indicate that plumbers engaged in new construction work have more accidents than those doing repair work, but that repair work results in a greater number of serious accidents.

Study of the 1949 figures indicates that the most common injuries suffered by plumbers were as follows in their order of frequency: sprains, cuts, bruises, fractures, burns, foreign bodies in the eye and hernias.

Seventy-five percent of injuries to plumbers resulted from four types

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Reliable
Source

The First Bank of
The United States
Constructed 1795-
97. Insured by Fire
Association of
Philadelphia.



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The Fire Association of Philadelphia has been providing fire insurance protection on famous buildings like the First Bank of the United States for over 135 years. Today you can count on equally reliable service from Fire Association-Reliance in the Contract Bond field. Contact your local Fire Association or Reliance agent now, or write us direct and we'll have him call on you. And remember... he's a good man to see about your Property and Casualty Insurance, too.

Head Offices: 401 Walnut St., Philadelphia 6, Pa. Branches in Atlanta, Chicago, Dallas, New York, San Francisco, Toronto. Claims and Settling Agents throughout the world.



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INSURANCE COMPANIES OF PHILADELPHIA

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BUILD PROFITABLY and SAFELY with Safway tubular steel scaffolding—first in the field

SAFE SCAFFOLDING MEANS FAST, ECONOMICAL BUILDING. Safway scaffolding is safer in more ways than any other scaffolding you can mention. Thousands—yes, thousands—of construction firms, contractors, industrial firms are using millions of dollars worth of Safway scaffolding to speed their construction projects safely and efficiently.

For more information contact the Safway representative in your city, or write to Safway Steel Products, Inc.

Tower of Strength



Workmen safely reach into the sky 75 feet high. They're using Safway scaffolding to dismantle a heavy steel stack in Minneapolis. Safway carbon steel frames are solidly joined with wing nuts to tubular steel cross braces for strength. All welds are made by master welders.

Corrosion Resistant



Weather and corrosion won't hurt the Safway scaffolding used in this 185 foot ski slide in Los Angeles. It's corrosion and rust resistant. Special phosphate bath converts surface of Safway steel scaffolding to non-metallic oxide. Baked-on weather resistant paint gives extra protection.

Assembled to Fit Contours



Standard Safway equipment is easily assembled to fit the curved bow and sloping sides of this vessel at the U. S. Navy yards. Only a few basic types of interchangeable members are needed to assemble scaffolds of any required shape and height.

Time-Saving and Safe



No wonder builders like balanced Safway steel scaffolding! It's engineered for structural stamina. Easy-to-assemble units speed erection of scaffolding and make dismantling simple. Pictured here is the lowest cost steel scaffold on the market for loads up to 50 lb. per sq. ft. with heights up to 40 ft.



SAFWAY

Manufacturers of Tubular Steel Scaffolding and Equipment

STEEL PRODUCTS
INCORPORATED
6241, West State St.
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RENTED and SOLD
by distributors
everywhere

ACCIDENT PREVENTION

of accidents: being struck by moving objects (28%), over-exertion (22%), bumping into objects (14%), and falls (12%).

The major causes of accidents were hazardous working procedures, lack of personal protective equipment, inadequately guarded machines and tools, and poor housekeeping.

Accident prevention suggestions made by the Bureau's safety staff indicate that most accidents to plumbers would be prevented if the workers were more cautious in their actions.

Accidents: "Iceberg Menace"

Indirect cost of accidents have been likened to the submerged 9/10 of an iceberg—though invisible, the danger is there just the same.

This analogy is put forth in a copyrighted leaflet by the safety engineering dept. of the Industrial Indemnity Co., Los Angeles. The visible portion of the "iceberg"—direct cost of accidents—is medical costs and compensation, a small fraction of the total cost.

Heading the list of hidden costs making up the rest of the unseen portion of the accident menace are economic loss to injured man's family, loss in earning power, cost of breaking in new man, damage to tools and equipment, spoiled work, overhead cost while work is disrupted and the failure to fill orders on time.

Though this is directed to all types of industry, it is especially true of the enormous hidden costs of construction accidents.

Education Cuts Accidents

Actual figures prove that the high cost of accidents can be cut more than one third by a program of education, the Florida Industrial Commission reported last month.

In construction, a breakdown shows that in 1952 there were 16,269 medical cases in Florida. Medical bills totalled \$272,317.74 and compensable cases numbering 3,752, cost \$1,363,919.41.

However, during the last two years over 4,000 foremen and superintendents have attended short-course lectures in safety by the commission. A check of 85% of their firms shows compensable cases have dropped in one year by 22% and the cost to their employers has dropped 36%.

Looking for a Medium-Priced Motor Grader with Big Capacity? — Investigate the



ADAMS

No. 312

70 H. P. Full-Diesel Engine



● If your requirements call for a motor grader with near heavy-duty weight and performance-ability—at a moderate price—the Adams No. 312 is made-to-order for you... Outstanding features include:

Husky Diesel Engine: Plenty of power and lugging ability—easy starting—dependable, economical.

8 Forward Speeds: 2 more than most graders. A correct speed for each operation—saves time, speeds work.

Positive Mechanical Controls: Dependable, accurate adjustments—easy, natural steering.

Wide Range of Blade Positions: Quick, easy adaptation to all kinds of work.

Big, Comfortable Cab: Roomy convenience for maximum operator efficiency—2-way adjustable seat.

Strong, Well-Balanced Construction: Machine will do much more work and last twice as long as an overworked small grader.

Optional Equipment: Scarifier—bulldozer—snow plow—big front tires—power steering, etc.

Let your Adams dealer demonstrate the time-saving, money-saving advantages of the No. 312.

J. D. ADAMS MANUFACTURING CO. • INDIANAPOLIS, IND.

Make your next motor grader an



Construction superintendent reports:

"Decided savings" on big Duraplastic* job

On this continuous pour job, Superintendent Phil North found that Duraplastic's outstanding uniformity and plasticity permitted moving the forms "at even speed . . . and quicker." That's why he says it resulted in "decided savings for us."

His experience is typical. When you use Duraplastic air-entraining portland cement, less mixing water is required for a given slump. It makes concrete more plastic, more cohesive, more uniform. And the increased plasticity aids proper placement with improved surface appearance.

Moreover, the finished concrete is fortified against effects of freezing-thawing weather, since Duraplastic minimizes water gain and segregation.

COSTS NO MORE

Yet there's no extra price on this extra performance. Duraplastic sells at the same price as regular cement! Complies fully with ASTM and Federal Specifications. Write for free descriptive booklet. Universal Atlas Cement Company (United States Steel Corporation Subsidiary), 100 Park Avenue, New York 17, N. Y.

To build this half-million-bushel elevator at Lima, Ohio, Felts & Jack Construction Company, Ft. Wayne, Ind., used 28,400 bags of Duraplastic. They find it improves surface appearance, helps cut costs.

*"Duraplastic" is the registered trade mark of the air-entraining portland cement manufactured by Universal Atlas Cement Company.

OFFICES: Albany, Birmingham, Boston, Chicago, Dayton, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Waco.

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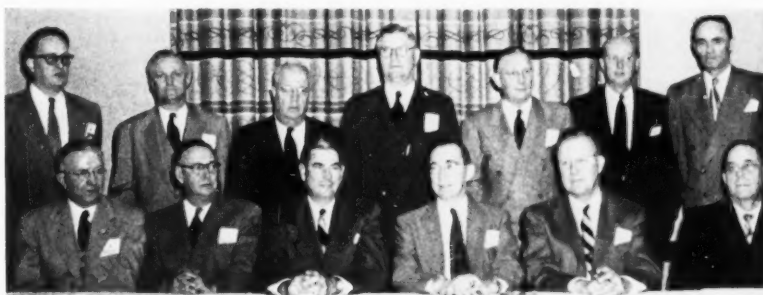
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At right—1953 officers and guests at A.G.C. of West Virginia convention are as follows: seated, left to right—Frank W. Robertson, Huntington, member of the national A.G.C. Advisory Board and chairman of the Legislative Committee; Ray E. Ritchie, director from the state; National A.G.C. President-elect Street; James M. Jarvis, Clarksburg, chapter president; D. R. Agnew, Ronceverte, retiring president; and C. H. Jimison, Huntington, reelected vice president. Standing, left to right—Eugene H. Brown, Charleston, executive secretary; Ira F. Kuhn, Charleston, chairman of the Associate Division; Walter Seabright, Wheeling, vice president; C. J. Kuhn, Charleston, secretary; Paul Anderson, Charleston, vice president; Robert Y. Hayne, Charleston, chairman of Highway & Heavy Division; and H. L. Wilson, Parkersburg, chairman of Building Division. Officers absent when the picture was taken include James E. Coombs, Morgantown and J. D. Higginbotham, Charleston, vice presidents; and W. E. Abbitt, Charleston, treasurer.

Surety Official Praises Contract Method

• Street and Marshall Also Address A.G.C. of W. Va. Meeting



» CONTRACT METHOD of construction, backed by bond, has raised the standards and qualifications of bidders on public works in this country to a degree that does not exist in

other lands, a surety official told the sixth annual convention of the A.G.C. of West Virginia at Charleston, January 16.

Even so, the construction industry does not require that a general contractor's financial standing be self evident, Elmer C. Anderson, assistant secretary of the Surety Association of America, continued. Mr. Anderson also serves with Charles S. Embrey, of the national A.G.C. staff, as co-secretary of the joint cooperative committee between the two groups.

"Nevertheless, when you figure a public job under the contract method of construction backed by bond you can be sure that you are not competing with straw men and it's worth the effort and time and money it costs to make up your bid. What kind of construction would be performed by straw men, anyway?" Mr. Anderson asked.

"Straw buildings, I think, and they still have those in some parts of the world," he quipped.

Quotes A.G.C. Booklet

To emphasize his point, Mr. Anderson quoted from the A.G.C.'s booklet, *The Contract Method of Construction*, which states, "The contractor posts a bond guaranteeing completion of the project for the price named in his bid. Thus the price of a project is guaranteed and is known before construction starts."

In urging contractors to make the most use of corporate suretyship this year, he suggested that they bring their accounting systems up to date and establish their banking and their surety credit on the soundest possible basis.

James D. Marshall, assistant managing director of the national A.G.C., predicted at the meeting that the new Republican administration will give

Officers Installed by So. California Chapter

» WITH OVER 900 members and guests attending the inaugural banquet and stag party in Los Angeles, the Southern California Chapter of the A.G.C. recently installed its 1953 officers and paid tribute to the retiring officers.

Elected by unanimous vote were the following: Spencer Webb, Webb & White, Los Angeles, president; vice presidents—Harry L. James, Guy F. Atkinson Co., Long Beach; William E. Irish, E. A. Irish Co.; and Ray A. Myers, Myers Brothers, from Los Angeles; and R. A. Smith, 1952 president, treasurer. W. D. Shaw will continue as manager.

New directors for 1953 include B. P. Willis, Merrill Dixon, Harvey Kruse, John J. Swigart, James L. Ferry, R. A. Wattson, M. F. Kemper, Donald E. Kelbey, K. W. Kendrick, W. W. Shepherd, Donald E. Reed, J. V. Quinn, and T. F. Frandsen.

Upon receiving the gavel from retiring President Smith, Mr. Webb said that the responsibilities of being president were "numerous and serious." He added that with the aid of the members and directors 1953 should be a year of "great accomplishments."

In concluding the business portion of the convention, Mr. Shaw praised the retiring directors for their work.



Left to right in picture are J. A. Thompson, Inglewood contractor; Donald E. Reed, director; Fred J. Early, Jr., Torrance (Calif.) contractor; Adolph Teichert, past national president of the A.G.C.; John MacLeod, vice president-elect of the A.G.C.; Spencer Webb, chapter president; and R. A. Smith, treasurer.

Fewer Construction Failures During 1952

• Surety Official Predicts at A.G.C. of Iowa Meeting Jan. 8

» WHEN THE 1952 figures are available, they will show fewer construction failures last year than there were in 1951, a surety official told the 31st annual convention of the A.G.C. of Iowa Jan. 8 in Des Moines.



Mr. Bickel



Mr. Walker

They will reflect an experience more favorable than that of 1951 when the number of construction failures reached a 10-year peak, brought about by pre-Korean bids which did not foresee the drastic changes that were to come in the nation's economy. A. H. Walker, manager of the bonding division of the Maryland Casualty Co., Baltimore, told the contractors.

Despite severe precautions, surety companies sometimes overestimate a contractor's abilities, and changing economic conditions present unforeseeable hazards, he admitted.

The June, 1950 aggression in Korea is a good example, for the period preceding the invasion saw prices for materials and labor generally stable. Then the war "set in motion a train

of action resulting in a scarcity of materials, increased price of materials, increased labor costs and possibly some inefficiency of labor. Many contractors had taken jobs at prices that did not allow for such changed conditions. As a result, some suffered financially and others failed to survive," he said.

But now the outlook is better and 1953 should be a good year for construction and surety companies, he predicted.

Edward F. Koch, chief engineer of the state highway commission, told the convention that the immediate outlook for Iowa's primary highway construction is gloomy. He said that only \$9.7 million more in contracts can be let this year. The other \$13.3 million authorized for such road construction has been obligated.

"The contractors and engineering forces have the capacity and the steel, concrete and other materials necessary are available to do \$35 million worth of primary road construction in Iowa each year. But all the highway commission has to spend for construction is \$23 million a year."

After hearing the address, the association adopted a resolution endorsing more study on the feasibility of toll roads in Iowa.

Dynamite Not Foolproof

F. D. Bickel, duPont explosives expert told the paving and surfacing division meeting that many new steps have been taken to make blasting materials in construction work safer, but the fact remains that dynamite is made to explode, is relatively dangerous and far from foolproof.

He gave a detailed report of recent tests conducted by duPont in Canada to determine at what distances one quantity of dynamite might be safely exploded without setting off nearby quantities.

For example, he showed by charts that if 50 lbs. of cap-sensitive dynamite were exploded then another amount of dynamite as near as 9 ft. away on the blast surface would always detonate through "propagation." He added that the quantities of dynamite would have to be at least 156 ft. apart to be certain of no propagation.

Archie N. Carter, manager, Highway Division of the national A.G.C., told the contractors that government

statistics predict 9% more highway building this year than in 1952. He added that President Eisenhower recognized the need of more highways for peacetime commerce and national defense during his campaign.

Nation's No. 1 Industry

Also, in an address to the meeting, Arthur S. Horner, president of the A.G.C., said that construction has been the nation's No. 1 industry in volume of business for two years.

Other convention business saw Kenneth Graves, Graves Brothers Co., of Melvin, elected chapter president for 1953. Other officers include R. H. Neighbour, Concrete Materials & Construction Co., Cedar Rapids, and Irving S. Jansen, Jansen & Krage, Sioux City, vice presidents; and W. L. Groesbeck, Green Construction Co., Des Moines, treasurer. O. W. Crowley continues as executive secretary.

Retiring President Roy Van Buskirk presented the chapter's top safety award for highway contractors to the Kaser Construction Co. for operating in 1952 without a lost-time accident. Donald Kaser accepted the plaque and cash award on behalf of his company's employees who worked 328,622 man-hours with no lost-time accidents. Iowa Governor William S. Beardsley congratulated Mr. Kaser for such a record of safe operation on highway construction. Seven other chapter members received accident prevention certificates for operating last year without lost-time accidents.

James Elected at Detroit

A. S. James, O. W. Burke Co., was elected president of the Detroit Chapter of the A.G.C. at the group's 37th annual meeting Jan. 21. He succeeds Charles H. Richert of J. A. Utey Co.

Other officers include John W. Armstrong, Darin & Armstrong, Inc., first vice president; Alfred Smith, Alfred A. Smith Co., second vice president; and G. K. Chapman, Walbridge, Aldinger Co., re-elected treasurer. Ralph A. MacMullan continues as secretary-manager.

New members of the board of directors are John Cooley; Lester Durning; Fred Auch; and Mr. Richert who was made an honorary director.

The chapter is composed of commercial and industrial building contractors which have erected many of the large buildings in the Detroit area.

West Virginia Meeting

(Continued from page 79)

business a "better shake" than it got under previous Democratic leadership.

He said that he saw no recession in business and forecast that in 1953 the construction industry would have one of its best years.

C. P. Street, Charlotte, president-elect of the A.G.C., was the principal speaker at the banquet meeting of the convention. Other speakers included Col. Enoch R. Needles, New York, consulting engineer on the West Virginia Turnpike; Keith Griffith, state road commissioner; George W. McAlpin, state construction engineer; and Joseph Burdett, president of the state board of control.

» HIGHLIGHTS of the Pipe Line Contractors Association meeting Jan. 18 in Houston included pipe welding specifications, ways for contractors to reduce complaints of land owners during construction operations and a \$1 million equipment display.

R. G. Strong and A. G. Barkow, chairman and secretary respectively of the joint welding committee of the American Petroleum Institute and the American Gas Association, reported on the recent development of pipe line welding specifications.

The specifications, as now written, are based on the review of most working specifications used by the major pipe line companies of the oil and gas

Pipe Line Contractors Meet in Houston

industries, and the report stated "that this specification is basically sound and can be applied to (such) construction in all parts of the country."

It also praised the Pipe Line Contractors Association for its part in bringing about the needed uniformity in welding specifications.

Charles A. Lingo, vice president of

the Tennessee Gas Transmission Co., Houston, told contractors that they can do much to effect better relations between pipe line companies and land owners if they (1) don't leave gates or fences open and permit livestock to stray or become mixed; (2) don't separate livestock from feed and water; and (3) don't leave trash on the land.

Chapter Officers front row, left to right: James P. Neill, vice president; Felix M. Johnson, director; Robert Thomas, president; R. A. Conyes, retiring president; C. C. Bledsoe, treasurer; W. E. Honey, director; and Richard A. Gump, executive secretary. Back row, left to right: Robert D. Sheehan, J. C. Britton, R. H. Fulton, Earl Allen, T. A. Hester, G. A. Manuel, and R. P. Gregory, all directors.



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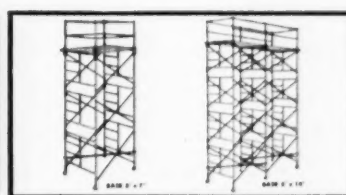
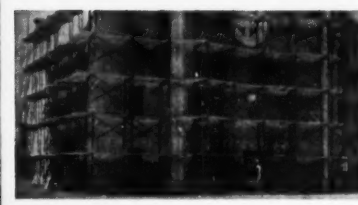
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Lt. Col. Miller President of Kansas Chapter

• Chapter Hears Call for More Highway Aid; Heavy Work Plans



» LT. COL. M. Clare Miller, partner of the San-Ore Construction Co., McPherson, was re-elected president of the Kansas Contractors Association for this year at the group's annual

convention, January 15-16 in Kansas City. He succeeded C. E. Maxwell, Maxwell Bridge Co., Columbus, president for the last two years.

Col. Miller was first elected presi-

dent in 1949 and again in 1950, as by tradition association presidents serve for two years. Before he could complete his last term, he was recalled to active duty, heading the 439th Engineer Construction Battalion in Korea. During the last two years the group served with distinction, making modern military engineering history constructing with speed and under difficulties a railroad bridge at Kira Chon and a highway bridge over the Han River. The 439th Battalion is sponsored by the contractors association in the A.G.C.'s Army Affiliation Program.

Left to right in picture are Arch Carter, manager, Highway Division of National A.G.C.; Col. Miller; and Messrs. Ballard, Moss, Maxwell, and Horner.

Gale Moss, director of highways in Kansas, reviewed the current problems of highway financing and suggested that the federal government get out of the "highway business" en-

(Continued on page 85)

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(Continued from page 82)

tirely or return to the states a greater amount of highway users taxes.

Of the \$2.22 billion collected in such taxes during fiscal 1952, less than 25% came back to the states in the form of federal aid, he added.

"Frankly, the states would be better off if they were permitted the exclusive right to the highway user tax field, even if federal aid were completely eliminated . . . (and) Kansas could well afford to forego any federal aid as we know it if we could have the benefits of such a tax."

Corps Program Outlined

Col. L. J. Lincoln, Kansas City district engineer for the Corps of Engineers, reviewed the Corps' construction programs in the area during 1952 and said that 1953 would see a similar program. Last year the Corps spent \$109 million for flood control in his district of the Missouri River Basin and \$120 million for military construction, he stated.

In closing, Col. Lincoln repeated previous remarks on work stoppages at military projects in the area. He asked the contractors to try and avoid conditions which might lead to more strikes. The situation has brought about a reluctance by military planners to locate additional defense facilities in the area, which otherwise is a favorable location.

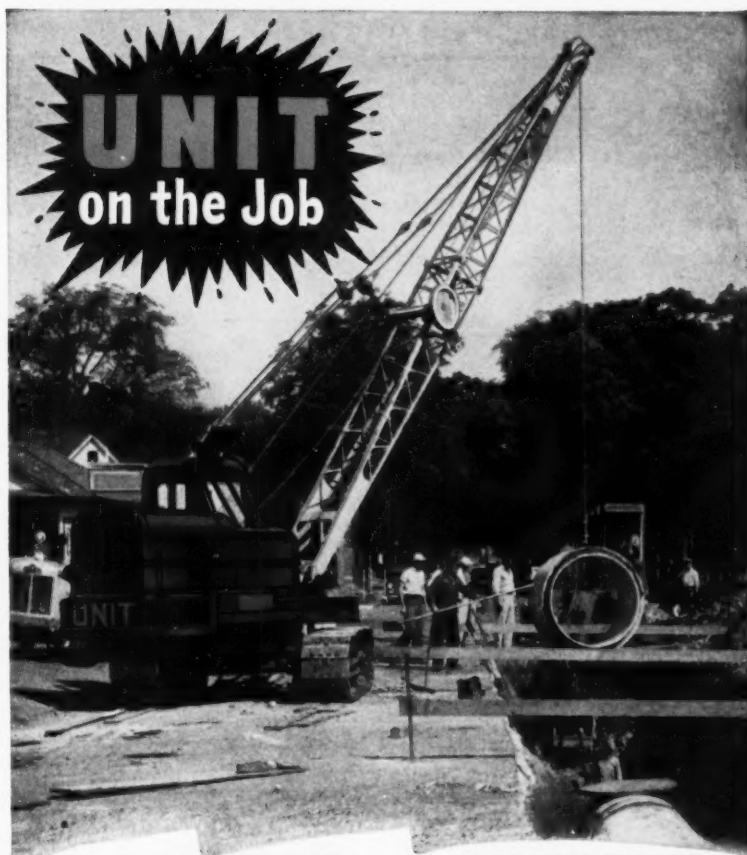
National A.G.C. President Arthur S. Horner reviewed the activities of the association last year and spoke of its work coming up this year.

"These contractors have joined the association to get results," he said, and "to get representation in Washington."

Concluding speaker at the meeting was H. E. Robinson, district manager, Kansas River District of the Bureau of Reclamation. He spoke on the 1952 construction program in the area and gave the outlook for 1953, which calls for work on two dams, highways and railroads.

Other chapter officers elected at the meeting were C. R. Ralph, E. W. Geiger Co., Inc., Topeka, vice president; C. L. Burt, Burt & Binford, Hutchinson, treasurer; and J. W. Ballard, Topeka, re-elected secretary.

Henry J. Massman, Sr., founder of Massman Construction Co., Kansas City, Mo., recently became chairman of the board with his son, Henry, Jr., succeeding him as president.



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Nebraska Chapters Meet Jointly in Omaha

• State Engineer Cites Harm of Reduced Highway Building Plans



Left to right: President John H. Miller of the Nebraska Building Chapter; Brig. Gen. W. E. Potter; and President Clarence Isaacson of the Nebraska Chapter.

» THE NEBRASKA Building Chapter and the Nebraska Chapter of the A.G.C. held their annual meetings jointly in Omaha, Jan. 19, elected new officers and heard addresses by construction industry officials.

Clarence Isaacson, Norfolk Bridge & Construction Co., Norfolk, Neb., was elected president of the Nebraska Chapter. Vice presidents are T. F. Armstrong, Peter Kiewit Sons' Co., Omaha; Robert A. Dobson, Dobson Brothers Construction Co., Lincoln; and George K. Werner, George K. Werner & Son, Clay Center. P. J. Mechan, Abel Construction Co., Lincoln, was elected treasurer. Wardner Scott was the 1952 president and James Critchfield remains as manager.

Officers for the Nebraska Building Chapter were elected as follows: John H. Miller, Olson Construction Co., Lincoln; Forest W. Rorick, Rorick Construction Co., Omaha; and Henry C. Fricke, Alliance, Neb., treasurer. Virgil J. Haggart was retained as secretary-counsel of the chapter.

Contractors May Leave

State Engineer Harold L. Aitken told the Nebraska Chapter general meeting that many of the state's most experienced highway contractors may leave for other areas if the state does not enlarge its highway construction program.

"These men (contractors) have thousands of dollars invested in equipment and they're not going to sit around for three or four years waiting to see whether or not Nebraska is going to have a highway construction program," he said.

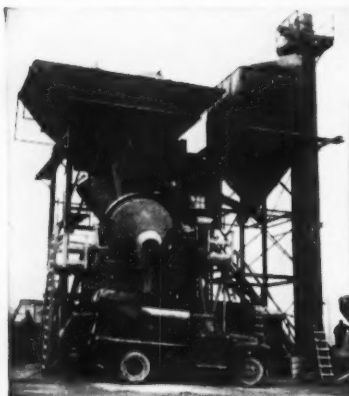
He added that only four states in the nation contracted for less highway work than did Nebraska in the first 11 months of last year. Also, the state will be able to contract for only 118 miles of highways in 1953 compared with 227 miles last year and 527 miles in 1951.

Other speakers included Brig. Gen. W. E. Potter, Missouri River Division Engineer; National A.G.C. President Arthur S. Horner, Denver; W. E. Blomgren, assistant chief, Bureau of Reclamation, Denver; and Archie N. Carter and Welton A. Snow, of the A.G.C. national staff, Washington, D. C.

The combined convention was attended by more than 460 contractors and guests of the chapters.

Mr. Scott presided over the convention and John Miller of Lincoln was toastmaster at the evening banquet.

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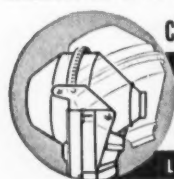
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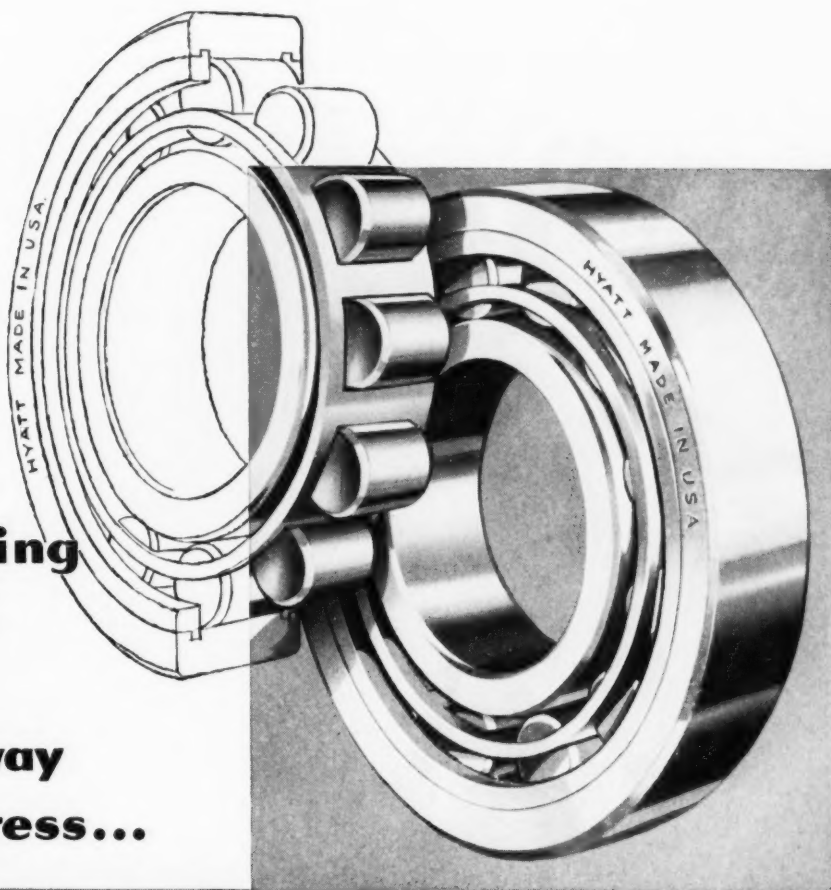
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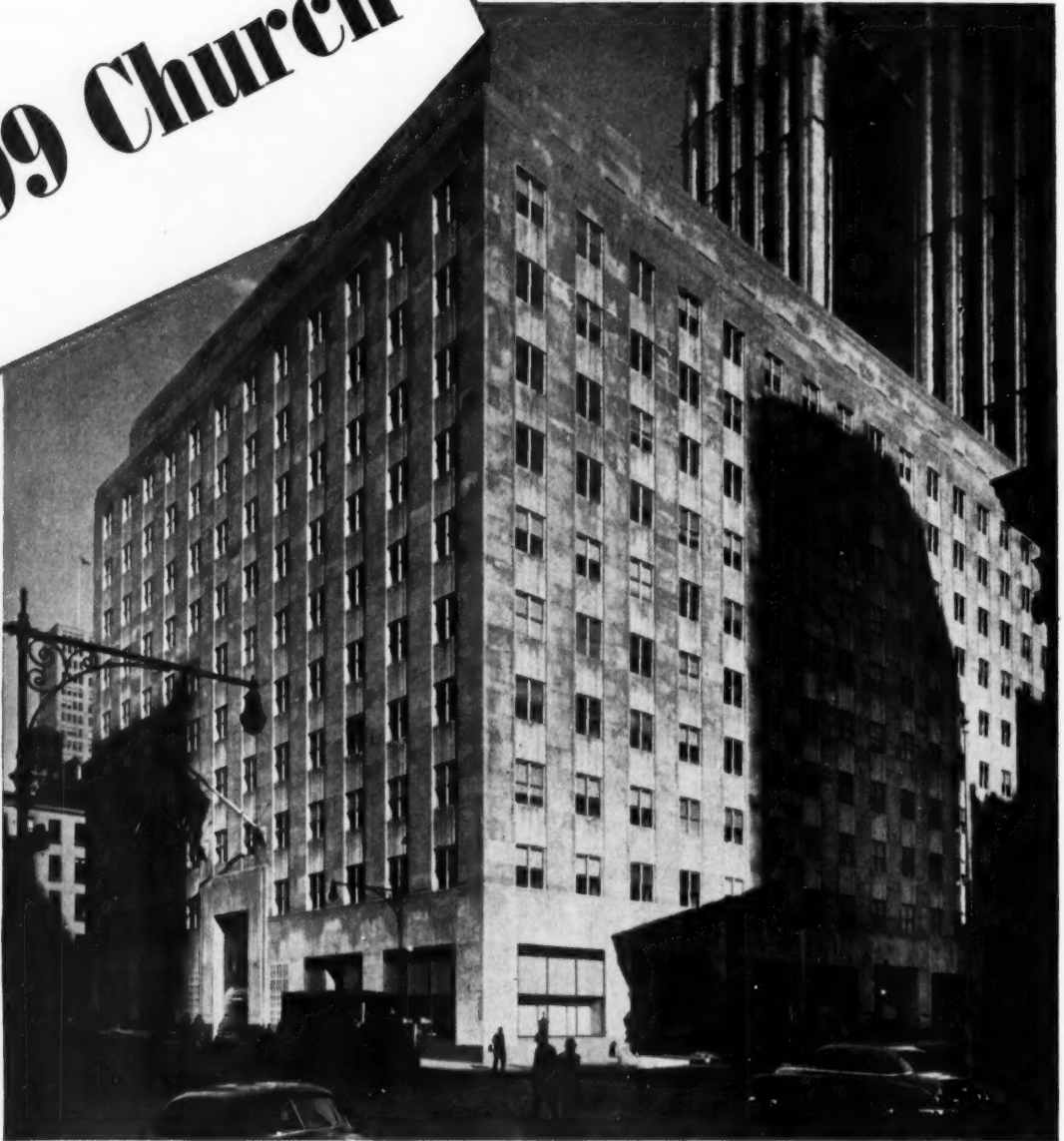
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CHAPTERS • BRANCHES

So. Texas Chapter Meets

South Texas Chapter, A.G.C., installed 1953 officers Jan. 23 at the annual meeting in Corpus Christi.

C. C. Hinchberger, Hinchberger Construction Co., Corpus Christi, is the new president, succeeding C. L. Cox. Mr. Hinchberger was president in 1947.



Mr. Cox

Mr. Hinchberger

Other officers installed include Guy Braselton, Braselton Construction Co., vice president; B. E. Bigler, Bigler & Bigler, treasurer; and the following directors—Howell Caldwell, W. H. Wolter and Curtis Arthur. Mr. Cox automatically became a member of the board of directors.

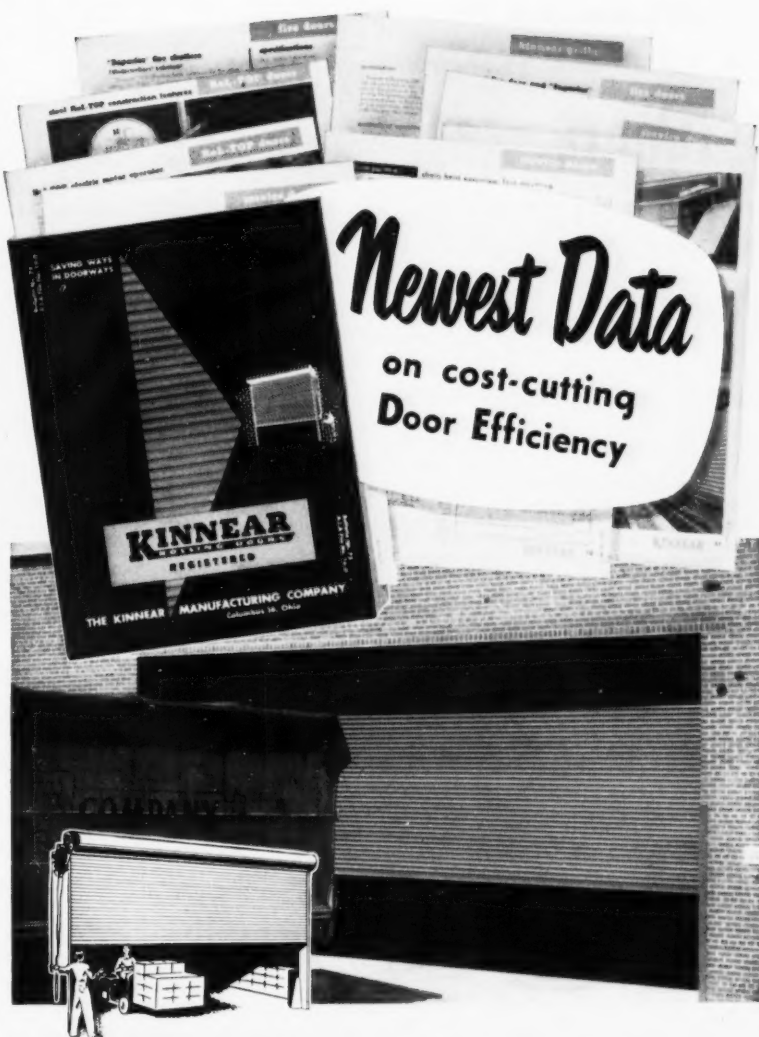
Fred W. Heldenfels, Jr., chairman of the Highway Division of the national A.G.C., a member of the Executive Committee and chairman of the Texas A.G.C. Chapters Executive Council, presided over installation of officers.

In his annual report to the convention, Mr. Cox cited the progress of the chapter during 1952 and said that the membership stands at an all-time high. He praised the work of the committees last year calling special attention to the home show committee which is planning another show next fall.

He commended the labor committee which published a book of rules for wage rates in the Corpus Christi area; the A.G.C.-carpenters apprenticeship committee; and the safety committee which organized a construction safety school at Del Mar College recently.

All 1952 directors were presented certificates of appreciation for their services to the chapter.

Jacob Hippert, 75, retired general superintendent of the Contracting Division of Dravo Corporation, A.G.C., Pittsburgh, died recently at his home in that city. Mr. Hippert was the second oldest member of Dravo Veterans Association.



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CHAPTERS • BRANCHES

Minn. A.G.C. Officers See Good Year Ahead

• Pres. Cook Predicts "Better Understanding" from Republicans



At left-center, C. P. Street, A.G.C. vice president-elect, presents a second place safety award to Fred De Ruyter, a highway contractor. Others in picture are (left) James M. Sprouse, assistant in the Heavy Division of the national A.G.C.; and (right) R. J. Hendershott, chapter manager.

» OPTIMISM for a good year in construction was expressed by outgoing officers of the A.G.C. of Minnesota in their annual reports to the convention Jan. 29-31 in Minneapolis.

President George F. Cook, in his report, praised the work of the association's Accident Prevention Committee and urged greater member interest and participation in the accident reporting program.

He also pointed out that although many problems remain unsolved, the chapter can look for a bright future in the new year. Of the change of Administration in Washington, he added that the industry could expect a "more realistic and better understanding" than it has gotten in the past.

A. H. Baumeister, vice president of the building division, reported increased activities of the division last year. Some of the important actions included work of the AIA-AGC Joint Cooperative Committee, the chapter's apprentice training program and help in the development of building codes. He also predicted an increase in building volume for Minnesota members this year. Mr. Baumeister was elected secretary-treasurer for 1953.

J. D. Meland, giving a report on highway division activities, said the state highway department spent \$33.3

million on roads—an increase of 11% over the 1951 volume. He also predicted that in 1953 state highway construction would be slightly increased. Mr. Meland was elected chapter president for the new year.

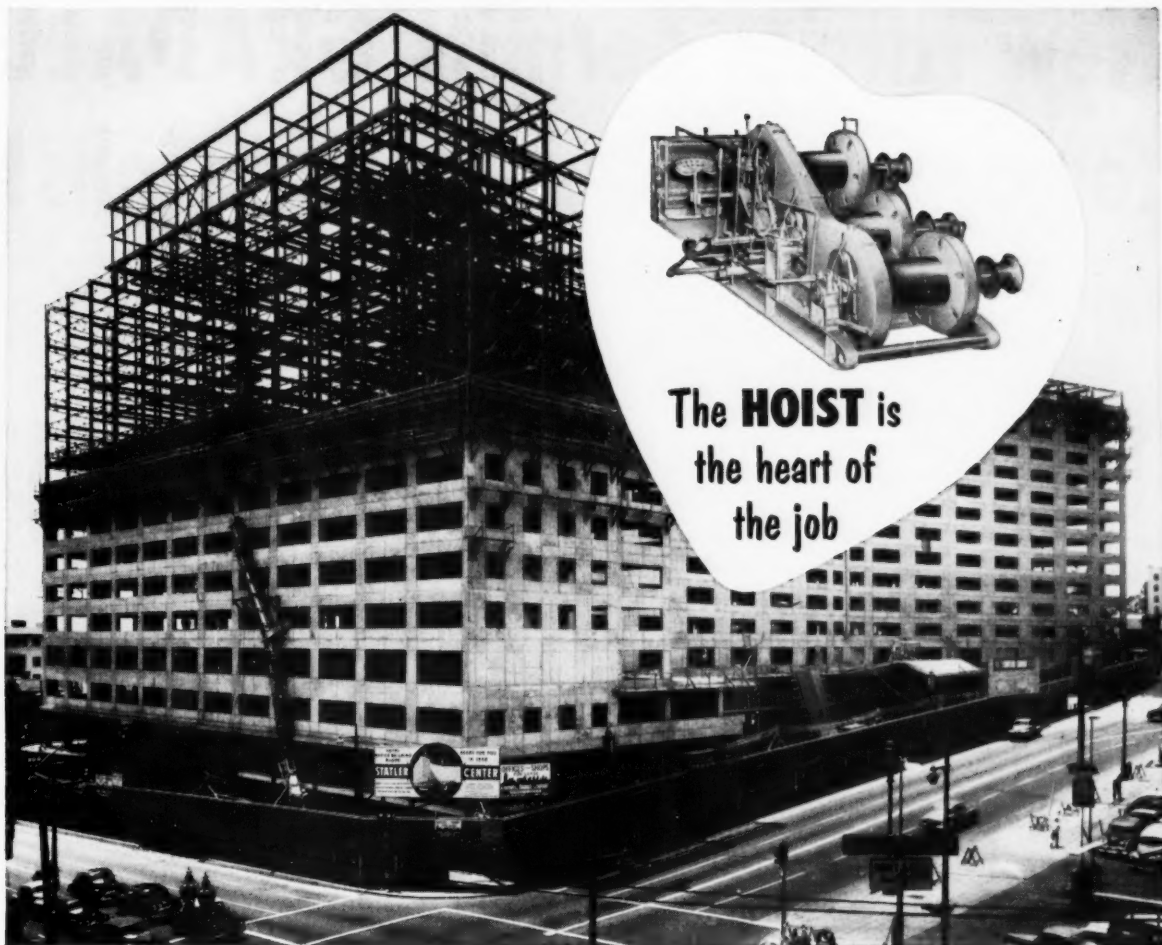
J. R. Howes, vice president of the heavy division, presented a similar picture for heavy construction in the state this year, and added that such work would continue high for the next several years.

Foremen's Part in Safety

At the annual accident prevention dinner, Robert F. Hoover, president of the A.G.C. of Missouri and chairman of its accident prevention committee, spoke on the role that superintendents and foremen play in safety. He said that many people talk about safety but do very little about it, and if it is to be effective in construction, then it is up to foremen to take the lead with the help of company officials.

Trophies and awards were presented to 11 firms for good safety records last year. They included: builders division—Walter W. Magee Co., St. Paul; Home Builders Co., St. Cloud; Naugle-Leck, Inc.; Madsen Construction Co.; Crawford-Merz Co.; Joseph A. Bass Co.; and Fred R. Comb Co., all of

(Continued on page 93)



No matter how much you spend on bigger, faster trucks, motorized concrete buggies, or any other equipment, the steady speed of your crews will always depend on the *hoist*.

That's why experienced contractors take no chances, in buying hoists. On the great new Statler Center in Los Angeles, pictured above, the entire job of lifting concrete was handled by one hoist—an American Model 100 3-drum electric, shown in inset. Its smooth, cool-running outside band

clutches, rock-solid bed and side frames, and perfectly aligned shafts kept it running night and day, week after week, month after month.

Two other Americans, handling miscellaneous materials, showed the same unfailing dependability on the Statler project. If you, too, want absolute safety *at the heart of the job*, choose exactly the size and type of hoist you need from the broad American line. Your American Hoist distributor can give you the best kind of service and advice.

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(Continued from page 90)

Minneapolis. Heavy division—Otto B. Ashbach & Sons, Inc., St. Paul; Woodrich Construction Co., Hopkins and the Walter W. Magee Co. Highway division—Thorson Construction Co., Balaton; DeRuyter Brothers, Willmar; and the Walter W. Magee Co.

Other chapter officers elected include O. A. Stocke, O. A. Stocke & Co., Inc., Rochester, vice president of the building division; H. P. Phelps, St. Paul Dredging Co., vice president of the heavy division; and S. R. Oakes, Oakes Construction Co., St. Paul, vice president of the highway division. R. J. Hendershott will continue as manager.

New directors are Mr. Stocke, representing the building division; Leon Joyce, of Rochester, representing the highway division; and Ray V. Johnson, Minneapolis, representing the heavy division. Each director will serve for three years.

Publish Public Works News

The Municipal Contractors Association, chapter of the A.G.C. with offices in Dallas, recently began publication of a monthly news bulletin reporting facts and features of public works projects in the Southwest.

Entitled *Plans and Specs*, the four-page public relations bulletin is distributed monthly to city officials, consulting engineers, legislators, civic clubs and others interested in public works construction.

It stresses proper planning and sound financing, more equitable contract documents and open competitive bidding for such public construction.

In the first three issues, beginning in November, lead stories have dealt with the water shortage in the dry Southwest, including the latest projects and acts by municipalities designed to ease the problem.

George H. Field, Dahlman Construction Co., was elected president of the Milwaukee Chapter, A.G.C., at the group's annual meeting Jan. 19. He succeeded H. F. Mielenz of Kroening Engineering Corporation, who became a director.

Other officers for 1953 installed were: John Sheahan, Roland H. Becker, Inc., vice president; Allan E. Knuth, E. C. Knuth & Co., secretary, and Alvin Drescher, A. Drescher Co., treasurer. George A. Benish is manager of the chapter.

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In three important ways:

First, safety messages imprinted on your AJAX Cups catch the eye every time an employee gets a drink. And the National Safety Council confirms that safety messages that get read help reduce accidents.

Second, clean, individual AJAX Paper Cups reduce the hazard of transmitted infections, cut down costly absenteeism, improve work-morale and efficiency.

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Western Pa. Chapter Meets in Pittsburgh



Members of board of governors from left to right: front row—Edward McCrady, Jr., William R. McQuade, Charles H. Booth, Jr., Frank O. Patterson, Anthony A. Benintend. Back row—Roy F. O'Mara, Ralph E. Cornish, John E. O'Leary, Chapter President Sturdy, Carl J. Jacobsen, and Russell C. Swank.

Kansas Building Chapter Elects Officers

» THE Kansas Chapter, Builders Division, A.G.C., held its annual meeting in Wichita, Feb. 13, and installed Frank E. Blaser, Frank E. Blaser Building Co., Wichita, as president. He succeeds W. H. Douglas of Topeka.

A record attendance of chapter members was on hand to hear addresses by A.G.C. National President Arthur S. Horner and Building Division Manager Welton A. Snow.

Kenneth Lewis, re-named manager, addressed the business session on the current labor picture in Kansas and told the members that the chapter is working with the state chapter of the

American Institute of Architects on a uniform index for specifications.

Edward Weilepp, editor of the *Kansas Construction Magazine*, spoke to the group on the progress of the statewide minimum building code and explained the provisions of the "right to work" bill recently introduced in the state legislature.

Other new officers are Cecil Hunter, O. D. Milligan Construction Co., Manhattan, vice president; and Carl Noland, Noland Construction Co., Dodge City, treasurer. Board members are Joseph Rauh, Salina; Thomas Constant, Lawrence; and Walter Armagost, Wichita.



Seated, left to right: National A.G.C. President Horner; Mr. Douglas; Chapter President Blaser; and Mr. Snow. Standing, left to right: Chapter Manager Lewis; Chapter Vice President Hunter; and Treasurer Noland. Directors not in picture are Joseph Rauh, Salina; Walter Armagost, Wichita; and Tom Constant, Lawrence. (KCM Photo)

» CONSTRUCTORS Association of Western Pennsylvania, an A.G.C. chapter of highway and heavy contractors, elected Howard H. Sturdy, Dravo Corp., for 1953 president at its annual meeting in Pittsburgh Feb. 12.

James D. Marshall, assistant managing director, Washington, D. C., told the business meeting that current actions of the new Administration have helped the construction industry.

James M. Sprouse, assistant manager of the A.G.C. Heavy Contractors Division, Washington, D. C., spoke on the first meeting of the joint committee between the A.G.C. and the American Public Works Association in Chicago, Jan. 28. (Page 43)

Retiring President Frank O. Patterson praised the committee chairmen and members for their support last year. He also termed the chapter's recent membership in the Pennsylvania State Council of General Contractors as a "great advancement for our industry."

In his executive secretary's report, Thurman C. Tejan said that news coverage of association activities has been expanded with stories and photographs appearing in more trade journals and daily newspapers. The chapter has also started furnishing to members at cost pictures of area jobs required by state highway specifications, he added.

At a luncheon meeting awards were presented to member companies with outstanding safety records for 1952. Nick Istock, a heavy contractor from Aliquippa, won the Class I award for working 252,720 man-hours without a lost-time accident. Class II award went to Rupp Brothers, Inc., of Kitting, for 60,985 man-hours without a lost-time accident.

Former Congressman Calvin Dean Johnson from Illinois told the banquet some of the results that could be expected from the recent change of administration in Washington.

Other new officers are William R. McQuade, vice president, the highway division; Allan D. McCombs, vice president, the heavy division; Edward McCrady, Jr., treasurer, all of Pittsburgh; and Charles H. Booth, Jr., Kensington, secretary.

Elected to the board of directors were Ralph E. Cornish, Carl J. Jacobsen, Robert H. Lee, Mr. McCombs, John E. O'Leary, Russell C. Swank, Richard A. Wetzig, Anthony A. Benintend, Charles H. Booth, Jr., Max C. Harrison, Mr. McCrady, Jr., Mr. McQuade, Roy F. O'Mara and Mr. Patterson.

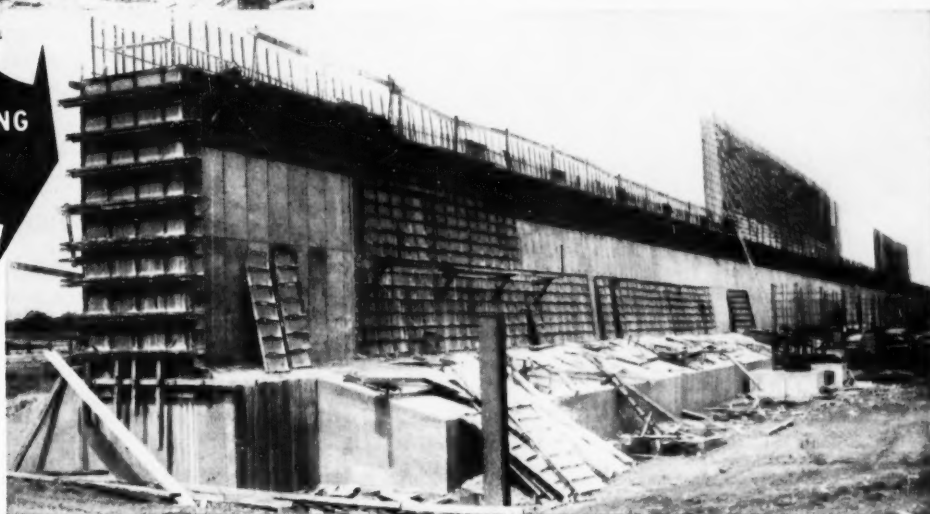
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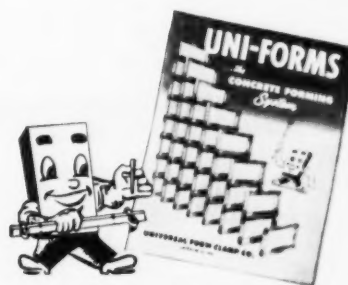


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Mar. 1953

Va. Branch Elects English

Policies of the new Administration indicate there is little chance of a trend toward "socialization of the construction industry," a national official of the A.G.C. told the Virginia Branch convention in Roanoke Jan. 15.

James D. Marshall, assistant managing director, Washington, D. C., added: "Our hope is that the (construction) industry will go slow, giving the new conservative government a chance to show itself. The feeling is that if given a chance they will show themselves to the advantage of the industry."



Pres. English

In the contract committee report, James Coleman, Wise Contracting Co., Richmond, discussed state contract documents and reported that favorable progress was being made toward including arbitration machinery, which does not now exist in them.

A.G.C. President-elect C. P. Street, Charlotte, N. C., addressed an informal luncheon on "Cooperation vs. Collusion" within the construction industry. He touched on legislative problems that might take authority away from the general contractor, and warned against "coalitions" between subcontractors with union support.

Welton A. Snow, manager of the A.G.C. Building Contractors' Division, predicted a \$44 billion market for construction this year.

W. Curtis English, English Construction Co., Altavista, was elected president and Clinton C. Carpenter, Carpenter Construction Co., Norfolk, vice president. Raymond V. Long, Alexandria, was re-elected secretary-treasurer and Herbert W. O'Grady was re-elected executive secretary.

Elected to three-year terms to the 15-man board of directors were J. D. Blackwell, Blackwell Engineering Co., Warrenton; Henry D. Porter, Henry D. Porter & Co., Lynchburg; E. S. Liles, Norfolk; and J. S. Mathers, J. S. Mathers, Inc., Waynesboro.

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★ **NEW—75 c.f.m.** portable air compressor designed for low cost mass production. Completely field tested.

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Gradall Carrier—The Warner & Swasey Co., 5701 Carnegie Ave., Cleveland 3. New undercarriage distributes Gradall load in reference to frame so that entire unit is tip-proof without need for outriggers. Its wheelbase is 18% shorter than before, being 162". It carries frame 244 1/4" in over-all length. Chassis weight is 12,550 lbs. Frame is constructed of 8" x 10" H-beam having section modulus of

40 lbs. Gross vehicle weight is 40,000 lbs. Engine is 427 cu. in. L-head unit developing 140 h.p. at 2,800 r.p.m. Incorporated in design are 13" vibration-dampened clutch, Timken axles and Bendix-Westinghouse air brakes. Carrier is also available with front driving axle in 6x6 model. Available as optional accessory is remote control carrier drive system making possible one-man operation.



New Gradall carrier

WELLMAN *Williams Type* PERFORATED DRAGLINE BUCKET *speeds the wet jobs*

● You get big loads fast with this Wellman Perforated Dragline Bucket because excess water goes out while gravel stays in on jobs such as illustrated.

Built of special alloy steel—all welded for strength plus light weight. You can work faster with less maintenance with Wellman dragline buckets.

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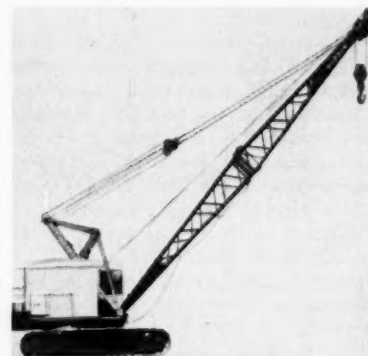
Dragline, Clamshell, Custom-Built
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THE WELLMAN ENGINEERING COMPANY

7000 Central Avenue
Cleveland 4, Ohio

Crane—The Thew Shovel Co., Lorain, Ohio. Model 820-KS 45-ton crawler crane consists of diesel-powered turntable with hydraulic coupling power take-off mounted on newly designed crawler. Air assist on boom hoist and crawler travel are standard. High-speed, double-threaded, worm-driven boom hoist with ratchet and pawl safety lock are crane features. Crawler is of 2-speed, chain-drive type, 18' 6" long and 14' 2" wide with 48" wide cast manganese steel tread shoes. Crawler has ground bearing area of 18,984 sq. in. Power for crawler's 2 travel speeds in both directions is transmitted by separate, horizontal, independent travel shaft on turntable. With 2-piece, pin-connected boom is used power-operated, tilting and folding type gantry and floating harness for reeving 6 parts of boom hoist cable. Center sections in 10' and 20' lengths are available to lengthen boom to 100'. Eye splice type center section pendant inserts are used. Feature of boom is open throat construction at tip that allows hoist cables and hook block to clear boom when operating at near vertical position. Three-sheave boom head for main hoist lines and whip line sheave are provided and 50-ton, 3-sheave hook block with swivel hook and bucket, plus 5-ton ball and hook for whip line are standard equipment.



Thew's Model 820-KS crawler crane

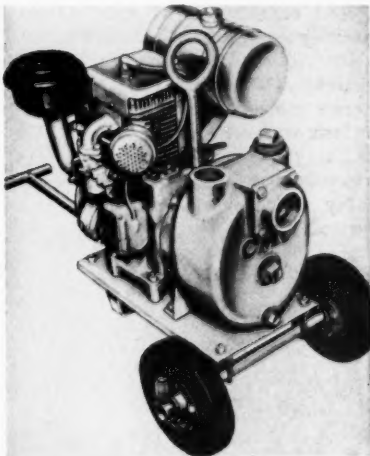
THE CONSTRUCTOR, MARCH 1953

Scraper Ejector Extensions—*Caterpillar Tractor Co., Peoria 8, Ill.* Ejector extensions are now available for No. 80, No. 20, No. 21, No. 70 and No. 15 Caterpillar scrapers. They are made of steel bars welded together and attached to top of ejector. Extensions are designed to reduce spillage, thus lessening chance of cable fouling, and to reduce loading time. Extensions will not hinder shovel or dragline loading.



Ejector extensions on Caterpillar No. 21 scraper

Pump—*Construction Machinery Co., Waterloo, Iowa.* Portable self-priming centrifugal pump is available in 4 sizes and 7 models, all powered with air-cooled engines. Sizes range from 1½" through 4". Self-priming is accomplished through dual volutes. Pump cases are of one-piece type and are self-cleaning. At point where rotating impeller shaft enters pump case, rotary shaft seal is used in place of stuffing box. Seal is of greaseless type requiring no lubrication and is protected from abrasive particles by hydraulic seal at rim of impeller. Pumps are furnished mounted either on rubber-tired wheels or on skid-type base.



Construction Machinery Co.'s 10M centrifugal pump

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For example, the MICHIGAN'S superiority was responsible for a sub-contract on the new Folger Coffee Company construction in Portland. Here, in spite of poor soil conditions, the MICHIGAN got into the site easily. Working into tight corners, it kept concrete moving to the forms with no delays, resulting in the successful completion of the contract. In addition, the MICHIGAN played an important part in other construction work at the site. In the opinion of veteran crane operator C. J. Nash, an outstanding feature of the MICHIGAN is its exceptionally rugged rear axle construction.

Get all the facts about truck cranes and you, too, will select MICHIGAN . . . engineered for tough going by America's pioneer truck excavator-crane builders.

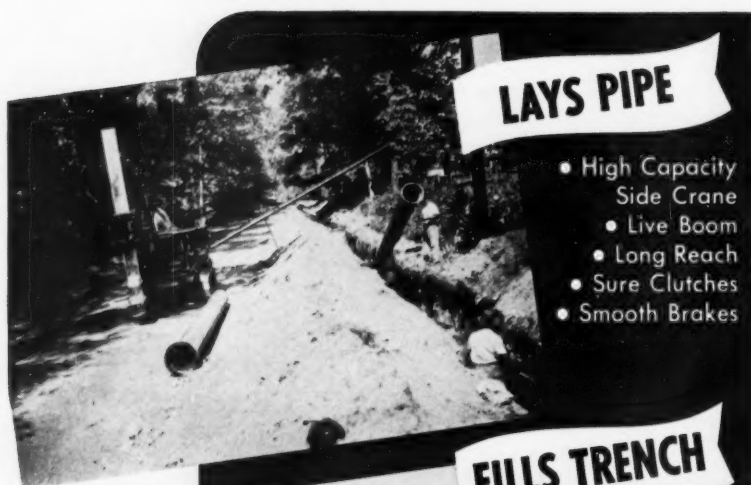
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- Fills From Either Side of Trench
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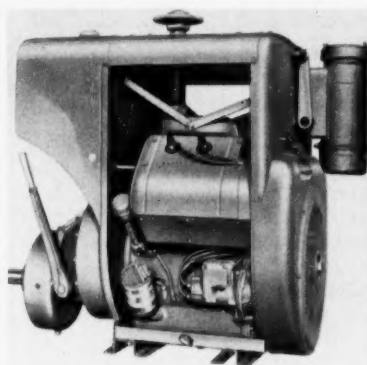
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THE CLEVELAND TRENCHER CO.

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20100 ST. CLAIR AVENUE • CLEVELAND 17, OHIO

Engine—Wisconsin Motor Corp., Milwaukee 46, Wis. Model VG4D is 4-cylinder, V-type heavy-duty air-cooled engine. It has $3\frac{1}{2}$ " bore, 4" stroke and 154 cu. in. displacement, developing peak rating of 36 h.p. at 2,200 r.p.m. It incorporates Wisconsin features of tapered roller main bearings, dynamically balanced forged crankshaft, mirror finish on crank pins, Stellite-faced exhaust valves, valve seat inserts and honed cylinders. Valve rotators of positive type are furnished on exhaust valves as standard equipment. Cooling is obtained from large fan cast in flywheel which forces strong blast of air across and around cylinders and heads. Engine can be equipped to operate on kerosene, fuel oil or natural gas.



Wisconsin Model VG4D air-cooled engine

Trailer—Martin Machine Co., Keokuk, Ill. Model R4TL alloy steel trailer weighs less than 8,000 lbs., has payload capacity of 27 tons. It is primarily designed to haul equipment in Caterpillar D8 weight class. It remains within legal axle load limits in most states. Trailer has 8' x 13' platform with over-all length of 27' 7" from kingpin to extreme rear. It features patented Martin tandem axle assembly which is full-oscillating and mounted on Neoprene.



Martin R4TL alloy steel trailer

NEW EQUIPMENT • MATERIALS

Portable Drinking Water Tank—*United States Envelope Co., Springfield 2, Mass.* New tank is made of stainless steel and ventilated to keep water cool. Web-type carrying straps can be adjusted to fit carrier's back, or tank can be carried by hand. Attached to tank is dispenser containing sanitary paper cups. Bottom of tank has been made into disposal compartment for used cups. Paper cups can also be used to promote safety campaigns by imprinting safety messages on them. Manufacturer handles imprinting.



U.S. Envelope Co.'s portable drinking water tank

Graders—*The Galion Iron Works & Mfg. Co., Galion, Ohio.* Models 104 and 118 motor graders are now available with General Motors 2-cycle diesel engines in addition to International Harvester diesel engines which have heretofore powered them. Model 104 will employ GM 3-71 engine rated for this service at 85 h.p.; Model 118 will use 104 h.p. 4-71 GM diesel.



Galion grader is now available with GM diesel engine

THE CONSTRUCTOR, MARCH 1953

Buda Model
HBQ 270°
Turntable
Mounted
Earth Drill



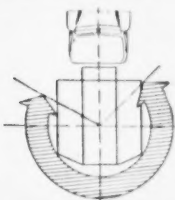
solve more HOLE DRILLING PROBLEMS

WITH **BUDA**
EARTH DRILLS
AND
ACCESSORIES

NEW!

**QUICK, EASY
LOCATION**

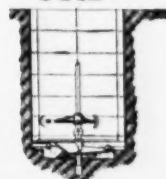
Turntable mounting of Earth Drill permits drilling at any point in 270° arc around the unit.



NEW!

**HOLE PROTECTION
IN UNSTABLE
SOIL**

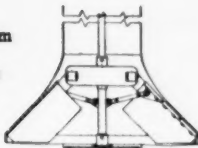
Helix and Caisson Undercutter Combination permits drilling and casing hole in 1 operation



NEW!

**DRILL FOUNDATION
PIERS**

Belling Tool enlarges bottom of bored hole to assure more bearing area and positive anchorage of concrete



NEW!

**FASTER, EASIER
SOIL SAMPLING**

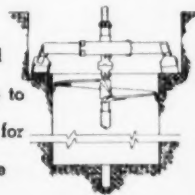
Permits procurement of uncontaminated samples with minimum amount of disturbance to depths of 100 ft.



NEW!

**DRILL LARGER
ACCESS HOLES**

Reaming Tool enables standard Earth Drill to enlarge hole up to 60" dia.—eliminates need for specially built, heavy, expensive equipment



**ANGLE DRILLING
45° FROM VERTICAL**



Hydraulic Controls provide adequate adjustment to vertical in difficult terrain and ability to dig angle or anchor holes.

Write for Bulletins giving diameter, depth and type of work for which equipment is needed. The Buda Company, Harvey, Illinois

BD-9

Nation-Wide Service

Write for name of your nearby
Buda Earth Drill Distributor
THE BUDA COMPANY
HARVEY • ILLINOIS

BUDA



Ditcher—*Barber-Greene Co., Aurora, Ill.* Model 705-B "Runabout" ditcher adds complete fluid coupling to "Hydra-crowd" hydraulic transmission which was feature of Model 705-A. Heavy-duty Chrysler industrial engine transmits power through Chrysler fluid coupling to "Hydra-crowd" transmission. Damage to machine by underground obstructions is lessened, since if obstruction presents

too much resistance to bucket line, coupling slips and bucket line stops. "Hydra-crowd" transmission provides machine with continuous range (from zero to 16' per min.) of forward speeds while digging. Hydraulic drive mechanism contains counter-balance valve which eliminates "run-away" tendency when machine is digging on downhill slope. Curved tooth bucket line is another feature of machine. Curved

tooth has same longitudinal cross section from tip to shoulder so that it remains sharp. Both ends of tooth are identical in shape so that it can be reversed. Digging range of 705-B is 5½", 7½", and 10½" in width and to maximum depth of 4'.



Barber-Greene "Runabout" ditcher

UNITED NATIONS GENERAL ASSEMBLY BUILDING

PERMALITE in plaster fireproofs the steel
PERMALITE in concrete insulates the roof



54,000 sq. ft. of plaster with Permalite were used to fireproof steel not only in General Assembly Building but also in two meeting halls. Plaster was applied 1" thick on expanded metal lath over steel beams, girders, trusses.

500 cubic yards of concrete with Permalite were poured as roof fill—reducing dead load and heat transmission. The contractor "...found Permalite to be a workable material, easy to mix, place and spread without special equipment."

The planners of the United Nations General Assembly Building have used Permalite for two important applications. Permalite, the leading perlite aggregate, was specified in plaster for fireproofing the structural steel; and in concrete for insulating roof fill. As a result, the maximum 4-hour fire rating for supporting steel has been achieved, and the roof has been insu-

lated by lightweight concrete. For insulation, fire-resistance, lightweight and better workability, plan to use Permalite on your future jobs. Permalite meets rigid specifications of Underwriters' Laboratories fire test. Frequent production control tests assure uniformity and consistently high quality in these aggregates. Complete data in our bulletins PA-26, PA-7 and PA-9.

Write Great Lakes Carbon Corporation, 612 S. Flower Street, Los Angeles 17, or local Permalite producer. See our insert in *Sweets File for Architects*.

Dependable GREAT LAKES
Permalite
THE LEADING PERLITE AGGREGATE

PRODUCED FROM SODORCO PERLITE ONLY BY THESE EXCLUSIVE PERMALITE LICENSEES OF GREAT LAKES CARBON CORPORATION

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Max Abramovitz, Deputy Director of Planning
James A. Dawson, Chief Construction Engineer
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Bakersfield, Texas
WILLIAM J. McILHINNAH & CO., INC.
New York, New York
PENNSYLVANIA PERLITE CORP.
Allentown, Pennsylvania

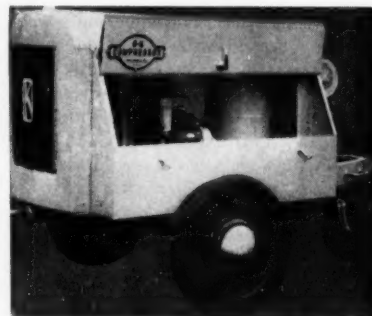
AIRLITE PROCESSING CORP. OF FLA.
Scottsboro, Indiana
NEW JERSEY PERLITE CORP.
Newark, New Jersey

MAIDMILLER COMPANY
St. Paul 4, Minn.
MCCOY & ERICKSON CORP.
Los Angeles, California

PERMA-ROCK PRODUCTS, INC.
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WEST INDIA PERLITE MFG. CO., INC.
Beverly, Cuba

THE WHITTEMORE COMPANY
Burlington 11, Mass.
VERMONT PERLITE CORP.
Roxbury, Vermont

Compressor—*O.K. Clutch & Machinery Co., 198½ Florence St., Columbia, Pa.* "Hornet 75" portable air compressor is 75 c.f.m. model. It is single-stage gasoline-powered compressor which can be handled by one man. It weighs 1,280 lbs. and can be towed behind passenger car. It uses 6-cylinder Chrysler engine rebuilt for compressor service. Power from 3 cylinders is used for air compression and from other 3 for power. Unit is mounted on 3-wheel streamlined trailer and pivot wheel is retractable. Large lockable tool boxes are located on each side of trailer.



O.K. Clutch & Machinery Co.'s
"Hornet 75"

Drill—*Independent Pneumatic Tool Co., Aurora, Ill.* "Thor Copper Line" ¼" electric drill features pistol grip operation. It weighs 2¾ lbs. and is 7⅝" long. Construction features include handle and field case cast in one piece, separate cover for switch mounting and ample hand grip. Switch is momentary type, with trigger lock pin for continuous operation.

NEW LITERATURE

Engineering and Surveying Instruments—*C. L. Berger & Sons, Inc., 37 Williams St., Roxbury, Boston 19.* Booklet presents complete line of telescopes, transits, levels and alidades. Special section is devoted to contractors' instruments. Accessories for instruments are shown.

Steel Joist Construction—*Steel Joist Institute, 1346 Connecticut Ave., N.W., Washington 6.* Latest edition of *Design Manual for Open Web Steel Joist Construction* contains latest standard specification for open web steel joist construction, complete safe load tables per linear foot of joist, as well as per square of floor or roof area. Full-page plates show dimensions, sections and properties of all institute-approved joists, recommended building code regulations, code of standard practice and recommendations for handling and erecting.

Mortar Cement—*Universal Atlas Cement Co., 100 Park Ave., New York 17.* Booklet details characteristics of Atlas mortar cement and presents statements by users about their experience with it.

Shores—*Safway Steel Products, Inc., 6241 W. State St., Milwaukee 13.* Leaflet presents all-steel shores, listing their advantages, telling how to use them, giving specifications and showing typical applications.

Bulldozer—*Baker Manufacturing Co., Springfield, Ill.* Big 15X bulldozer for use with Allis-Chalmers HD-15 tractor is presented in new bulletin. It illustrates operational and portability advantages of "no-pushbeam" design and explains versatility and maneuverability.

Pipeline Trencher—*Cleveland Trencher Co., 20100 St. Clair Ave., Cleveland 17.* Bulletin S-114 presents Cleveland 320. Pictures show it working on pipeline jobs throughout country. Features of machine are listed, dimensions and specifications are included.

Road Machinery—*J. D. Adams Mfg. Co., Indianapolis 6.* Bulletin (Form 532) shows Adams line of motor graders, gives brief specifications and presents optional equipment. "Traveloader" and pull-type graders are also presented. Action photos show them working on variety of jobs.

"At 10:35 A. M. tomorrow you will discover that your cashier has embezzled \$40,000"



That's a pretty valuable weighing machine. Just put a penny in and learn the future.

If it were only that simple!!!

But it's not. You never know when or how human weakness may cause paralyzing loss — even financial disaster — for you. That's where the **INVISIBLE ARMOR** of a **NATIONAL SURETY BLANKET BOND** takes the guess-work out of the future. With it you are protected against dishonest acts by employees.

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INVISIBLE ARMOR ©

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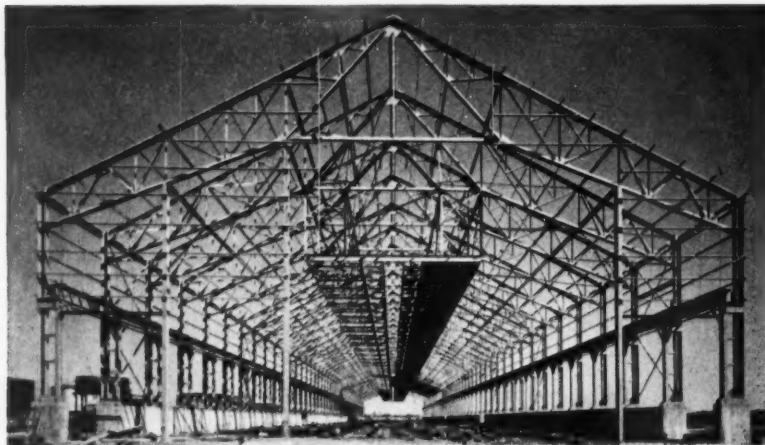
NATIONAL SURETY

National Surety Corporation, 4 Albany St., New York

Aluminum Casement—Truscon Steel Division, Republic Steel Corp., Youngstown 1, Ohio. Aluminum residential casement is presented in new folder. Detailed information about windows, including types and sizes available, is included. Casements in 2, 3 and 4 light widths are offered in modular sizes. Advantages of modular system are covered. Specifications are included.

Diesel Engines—Harnischfeger Corp., Diesel Division, Crystal Lake, Ill. Booklet, *What You Should Know About Diesel Engines*, records diesel engine's invention and early development; compares it with gasoline engine; tells about 2-cycle and 4-cycle types of diesels; explains operation in pictures and words; reports latest advancements in modern diesel engine design.

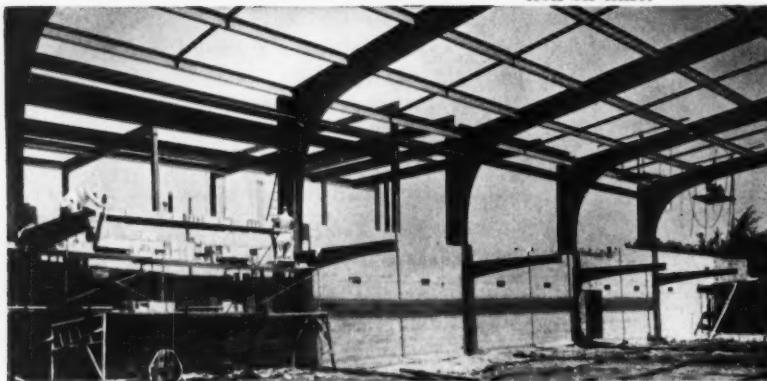
Earthmoving Equipment—The Euclid Road Machinery Co., Cleveland 17. Complete Euclid line is presented in 48-page book, *Euclid Equipment for Moving Earth, Rock, Coal and Ore*. Information is presented on selection of proper type of equipment for various types of work and manner in which twin-power—use of 2 engines powering separate axles—is employed in some models is explained. Complete line of Euclid rear-dumps, bottom-dumps, scrapers and loaders are illustrated along with job views of them at work. Brief specifications and typical performance figures are given for various models and individual design features are explained.



Bauxite Storage Building, Aluminum Co. of America, Bauxite, Ark.

FABRICATED STRUCTURAL STEEL for Industrial Buildings

Three fabricating shops work as one huge operation to fabricate the steel and get it on location on time.



High School Gymnasium at Crystal Lake, Ill.



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Erecting crews know many short-cut methods to meet schedules. Send your plans and specifications to us to be estimated.

- Clinton Bridge Corporation
- Gage Structural Steel Corporation
- Midland Structural Steel Corporation

Fabricators & erectors of structural steel for highway & railroad bridges; industrial, office, school, & government bldgs.; airport structures; harbor facilities.

Bulldozers—Caterpillar Tractor Co., Peoria 8, Ill. Catalog (Form 30461) called *Caterpillar Bulldozer Line* presents bulldozers and their attachments. Model views show every size and style of bulldozer made by Caterpillar and cut-away views illustrate their features. Brief specifications accompany each model view and 2 pages in back of book give detailed specifications. Important components of hydraulic and cable controls are pictured and their manufacturing processes discussed. Attachments, such as brush, root and rock rakes, "Treedozer" and "Stumper," manufactured by Fleco for Caterpillar, are also discussed.

Forms—Symons Clamp & Mfg. Co., 4259 W. Diversey Ave., Chicago 39. Three new sheets give construction details for Symons high-strength panel form, light construction panel form and all-wood panel form. Each sheet gives exact measurements of 2' x 8' panel, 12" x 8' filler, 2" x 8' filler and inside corner. Included are step-by-step construction procedure and hardware requirements schedule.

Shovel—Marion Power Shovel Co., Marion, Ohio. Marion 111-M diesel shovel with 4 cu. yd. dipper is presented in Bulletin 402-A. Photos show shovel in various material-handling applications. Features of machine are shown.

Tractor—The Oliver Corp., 400 W. Madison St., Chicago 6. Catalog on "OC-18" industrial tractor explains operation of machine, presents application photos, diagrams and sketches as well as complete specifications.

MANUFACTURERS' NOTES

L. C. Perkinson has been elected vice president and G. C. Walker treasurer of AMERICAN CYANAMID Co.

LULL MANUFACTURING CORP. has become a subsidiary of THE BAKER-RAULANG Co. and its name has been changed to THE BAKER-LULL CORP. Gilbert C. Stregg has been named president of Baker-Lull.

Thomas E. Wilson has been appointed general manufacturing manager of GMC TRUCK AND COACH DIVISION, succeeding Philip J. Monaghan who was appointed general manager of the division when Roger M. Kyes resigned to accept the post of Deputy Secretary of Defense.

Ernest F. Bentley has been appointed general sales manager of DETROIT DIESEL ENGINE DIVISION of GENERAL MOTORS, succeeding V. C. Genn who died in January.

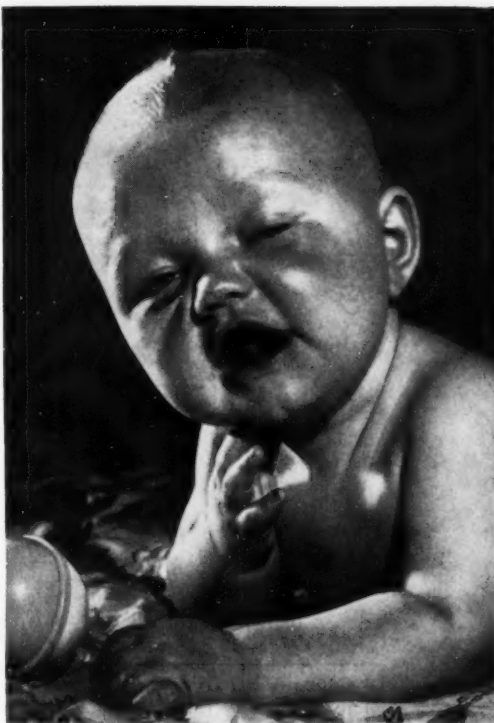
W. Ward Kievit has been named treasurer of RAYBESTOS-MANHATTAN, INC., succeeding George R. Weber, recently deceased. William S. Simpson has been appointed general manager of the Raybestos Division, succeeding Robert B. Davis, recently retired.

Dwight A. Bessmer has been elected a vice president of THE TIMKEN ROLLER BEARING Co.

GAR-BRO MANUFACTURING Co. of Los Angeles has set up new manufacturing facilities in Peoria, Ill., to supply its equipment to eastern contractors. Walter F. Dexter is manager of the Peoria branch.

Ground will be broken May 1 for CECO STEEL PRODUCTS CORP.'s new Pittsburgh office and plant. The factory building will provide 80,000 square feet of manufacturing and warehousing space. The office building will provide 4,000 square feet. Martin & Nettlebar Co. of Pittsburgh (A.G.C.) is the general contractor.

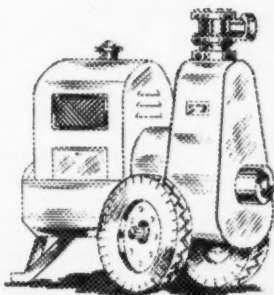
E. C. Brekelbaum, formerly vice president and executive engineer of Harnischfeger Corp., has been appointed director of methods of THE THEW SHOVEL Co. R. H. Zeilman has been appointed director of engineering at Thew, M. L. Sheetz, chief executive engineer and O. Von Mehren, chief design engineer.




... you buy
A.G.C. Rated Pumps
like I do ... and
some day you'll
be the boss!

**Look for it
when you buy**

**YOUR GUARANTEE
OF PERFORMANCE**





40M

(40,000 G.P.H.)

THIS PUMP COMPLIES
WITH
A.G.C. STANDARDS
FOR SELF PRIMING
CENTRIFUGAL PUMPS

Self-Priming and Diaphragm Pumps wearing the AGC plate are guaranteed to give **FULL PERFORMANCE!**

They must meet certain standards of pump performance as set up by the PUMP BUREAU.

These standards are approved by the AGC and guaranteed by the manufacturers listed below.

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Mansfield, Ohio

CARVER PUMP CO.
Muscatine, Iowa

CHAIN BELT COMPANY
Milwaukee, Wisconsin

C. H. & E. MANUFACTURING CO.
Milwaukee, Wisconsin

CONSTRUCTION MACHINERY CO.
Waterloo, Iowa

ESSICK MANUFACTURING CO.
Los Angeles, California

**FOOD MACHINERY AND
CHEMICAL CORPORATION**
Peerless Pump Division
Los Angeles, California

THE GORMAN-RUPP CO.
Mansfield, Ohio

THE JAEGER MACHINE CO.
Columbus, Ohio

LEYMAN MANUFACTURING CORP.
Cincinnati, Ohio

MARLOW PUMPS
Ridgewood, New Jersey

NOVO ENGINE CO.
Lansing, Michigan

RICE PUMP & MACHINE CO.
Grafton, Wisconsin

STERLING MACHINERY CORP.
Los Angeles, California

WORTHINGTON CORPORATION
Construction Equipment Division
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THE *Best* RULE TO FOLLOW WHEN YOU BUY A MIXER...



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Port Washington, Wisconsin

THE T. L. SMITH COMPANY
Milwaukee, Wisconsin

WORTHINGTON CORPORATION
Construction Equipment Division
Plainfield, New Jersey

ADVERTISERS' PRODUCTS

Manufacturers' addresses are listed on page 110

Aggregate (Light-Weight)
Great Lakes Carbon Corp.

Air Entraining Agents
A. C. Horn Co.

Asphalt Plants (Portable)
Barber-Greene Co.
Iowa Mfg. Co.
Standard Steel Works
White Mfg. Co.

Backfillers
Bucyrus-Erie Co.
Cleveland Trencher Co.
Gradall Division
Harnischfeger Corp.
Parsons Co.
Unit Crane and Shovel Corp.

Batchers
Blaw-Knox Division
Butler Bin Co.
Construction Machinery Co.
Heltzel Steel Form & Iron Co.
C. S. Johnson Co.

Bearings (Anti-Friction, Tapered Roller)
Hyatt Bearings Division
Timken Roller Bearing Co.

Bins
Blaw-Knox Division
L. Burmeister Co.
Butler Bin Co.
Heltzel Steel Form & Iron Co.
Iowa Mfg. Co.
C. S. Johnson Co.

Bits (Detachable Drill)
Ingersoll-Rand Co.
Timken Roller Bearing Co.

Blasting Accessories
American Cyanamid Co.

Bonding Agent for Concrete
Larsen Products Corp.

Bridges
American Bridge Division
Armco Drainage & Metal Products

Buckets (Clamshell & Dragline)
Blaw-Knox Division
Bucyrus-Erie Co.
Harnischfeger Corp.
C. S. Johnson Co.
Owen Bucket Co.
Wellman Engineering Co.

Buckets (Concrete)
Blaw-Knox Division
Construction Machinery Co.
Heltzel Steel Form & Iron Co.
Owen Bucket Co.

Buildings (Steel)
Allied Structural Steel Cos.
American Bridge Division
Armco Drainage & Metal Products
Macomber, Inc.
Truscon Steel Division

Bulldozers
Baker Manufacturing Co.
Bucyrus-Erie Co.
R. G. LeTourneau, Inc.

Car Pullers
Clyde Iron Works

Cement (Common and Special)
Lone Star Cement Corp.
Marquette Cement Mfg. Co.
Universal Atlas Cement Co.

Cement (White)
Trinity White, General Portland Cement Co.
Universal Atlas Cement Co.

Clamps (Hose)
Dixon Valve & Coupling Co.

Compressors
Allis-Chalmers Co.
Ingersoll-Rand Co.
LeRoi Co.
O.K. Clutch & Machinery Co.

Concrete Curing Material
A. C. Horn Co.

Concrete Mixers, Pavers, Tampers
Chain Belt Co.
Construction Machinery Co.
Foote Co.
Jaeger Machine Co.
Knickerbocker Co.
Koehring Co.
Kwik-Mix Co.
T. L. Smith Co.
Worthington Corp.

Concrete Vibrators
Concrete Surfacing Machinery Co.
Electric Tamper & Equipment Co.
Ingersoll-Rand Co.
Vibro-Plus Products, Inc.
White Mfg. Co.

Conveying Machinery
Barber-Greene Co.
Chain Belt Co.
Iowa Mfg. Co.
Smith Engineering Works

Crane Safety Alarm
Electro-Alarm Safety Devices

Cranes
Austin-Western Co.
Bucyrus-Erie Co.
Cleveland Trencher Co.
Clyde Iron Works
Harnischfeger Corp.
Koehring Co.
R. G. LeTourneau, Inc.
Michigan Power Shovel Co.
Northwest Engineering Co.
Thew Shovel Co.
Unit Crane and Shovel Corp.

Crushing Machinery
Allis-Chalmers Co.
Austin-Western Co.
Iowa Mfg. Co.
Smith Engineering Works

Culverts
Albert Pipe Supply Co.
Armco Drainage & Metal Products

Cups (Paper Drinking)
United States Envelope Co.

Cutters (Abrasive)
Wodack Electric Tool Corp.

Decking (Roof Steel & Aluminum)
Macomber, Inc.

Derricks

Clyde Iron Works

Doors (Metal, Wood)

Ceco Steel Products Corp.
Kinnear Mfg. Co.
R. C. Mahon Co.
Truscon Steel Division

Dredging Machinery

Bucyrus-Erie Co.
Harnischfeger Corp.
Northwest Engineering Co.

Drills & Drilling Machinery

Bucyrus-Erie Co.
Buda Co.
Ingersoll-Rand Co.
Timken Roller Bearing Co.

Drills (Electric)

Wodack Electric Tool Corp.

Drinking Water Dispensers

United States Envelope Co.

Elevators (Material)

Chain Belt Co.
Iowa Mfg. Co.
Smith Engineering Works

Engines

Allis-Chalmers Tractor Div.
American Hoist & Derrick Co.
Buda Co.
Caterpillar Tractor Co.
Continental Motors Corp.
Cummins Engine Co.

Detroit Diesel Engine Division

Harnischfeger Corp.
Ingersoll-Rand Co.
International Harvester Co.
LeRoi Co.
Wisconsin Motor Corp.

Estimating Methods

Roche Estimating Methods

Expansion Joints

Laclede Steel Co.

Explosives

American Cyanamid Co.

Financing

C.I.T. Corp.

Finishing Machines (Bituminous)

Barber-Greene Co.
Blaw-Knox Division

Finishing Machines (Concrete)

Blaw-Knox Division

Flooring

Truscon Steel Division

Forms (Concrete) and Accessories

Blaw-Knox Division
Economy Forms Corp.
Heltzel Steel Form & Iron Co.
A. C. Horn Co.
Joseph T. Ryerson & Son, Inc.
Symons Clamp & Mfg. Co.
Universal Form Clamp Co.

Generating Sets (Electric)

Caterpillar Tractor Co.

Graders

J. D. Adams Mfg. Co.
Allis-Chalmers Tractor Div.
Austin-Western Co.
Caterpillar Tractor Co.
Euclid Road Machinery Co.
Galion Iron Works & Mfg. Co.
Gradall Division
Koehring Co.
W. A. Riddell Corp.

Gravel Plants (Portable)

Iowa Mfg. Co.
Smith Engineering Works

Grinders (Electric)

Wodack Electric Tool Corp.

Hammers (Electric)

Wodack Electric Tool Corp.

Hoists

American Hoist & Derrick Co.
Clyde Iron Works
Construction Machinery Co.
Harnischfeger Corp.
Ingersoll-Rand Co.
McKiernan-Terry Corp.

Hose (Air, Water, Steam, Suction)

United States Rubber Co.

Industrial Financing

C.I.T. Corp.

Insurance (Automobile, Casualty, Compensation, Liability)

Aetna Casualty & Surety Co.
American Casualty Co.
Central Surety & Insurance Corp.
Employers Mutuals of Wausau

Jacks

Buda Co.

Jacks (Scaffold)

Wilson-Albrecht Co.

Joists (Steel)

Ceco Steel Products Corp.
Laclede Steel Co.
Macomber, Inc.

Kettles, Heating (Asphalt & Tar)

Standard Steel Works
White Mfg. Co.

Lighting Plants

LeRoi Co.

Loaders (Portable)

J. D. Adams Mfg. Co.
Barber-Greene Co.

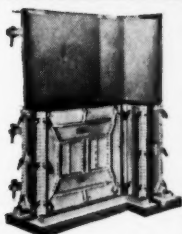
Lubricants

Gulf Oil Corp.
Lubriplate Division

Menders (Hose)

Dixon Valve & Coupling Co.
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Save manpower time and material



When placing concrete, use this nationwide Form Rental and Engineering Service to increase profits, reduce costs.

Standard units of Economy Forms fit most jobs. But where needed, special forms can be built to specification.

ECONOMY FORMS CORP.
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metal forms for
concrete construction

- Foundations and Walls
- Water or Sewage Treatment Plants
- Tanks — Circular and Rectangular
- Bridges, Culverts and Box Tunnels

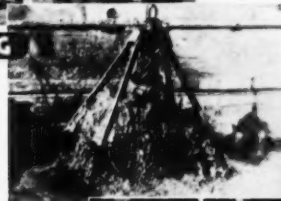
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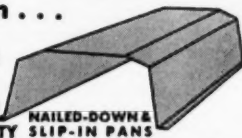
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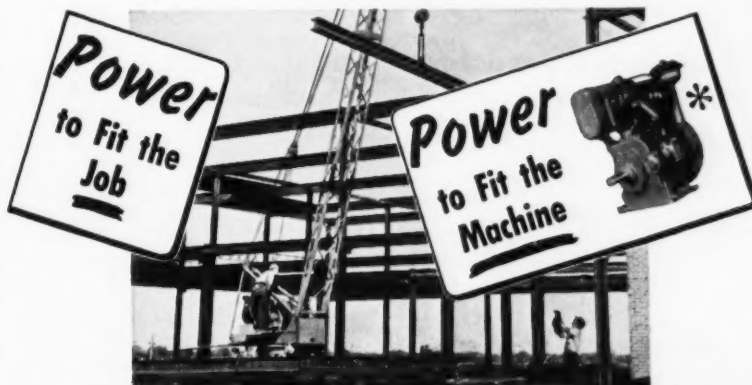
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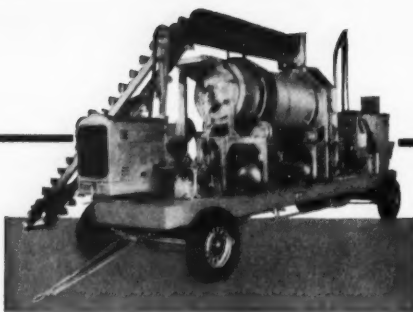
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Ask Any Contractor Who Uses Wodacks



WODACK "Do-All"® Combination Electric Hammer and Drill

The customers who keep the Wodack plant busy making Wodack "Do-All" Electric Hammers are those who have used them and keep on ordering more.

One manufacturer has 114, an elevator contractor 58, a public service company 101, and thousands of contractors have one or more.

Your first order is the important one. Compare the Wodack "Do-All" with

other hammers and you too will standardize on Wodacks.

Write your next order for a Wodack "Do-All", the electric hammer that is also an electric drill. Ask for Bulletin 510-C and Price List.

Wodack® Electric Tool Corp.
4629 W. Huron St., Chicago 44, Ill.
AUSTIN 7-9866



Euclid 15.5 cu. yd. Scraper hauls load out of wet, spongy borrow pit near East Pembroke.

Bottom-Dump "Euc" receives a heaping payload of 15 cu. yds. from a Euclid Loader in 40 seconds near Montezuma, N. Y.



"Eucs"

SPEED GRADING ON NEW YORK THRUWAY



Contractors working on the New York State Thruway depend on Euclids to get the job done on schedule. There are already about 135 "Eucs" on this 535-mile project, which requires the moving of approximately 80,000,000 cu. yds. of earth and rock. The Thruway is scheduled for completion in 1954.

All types of Euclid equipment—Scrapers, Bottom-Dumps, Rear-Dumps and Loaders—are speeding the grading on this job... hauling bigger loads, faster, and at low cost... providing dependable service at low maintenance cost under the toughest conditions.

Here, as on the building of many highways, dams, airports, levees, and other major earth moving jobs, you'll find the large capacity, high speed and job availability of "Eucs" paying off for owners.

The EUCLID ROAD MACHINERY Co.
CLEVELAND 17, OHIO



Working near Schenectady, this "Euc" is dumping 15 tons of fill material.

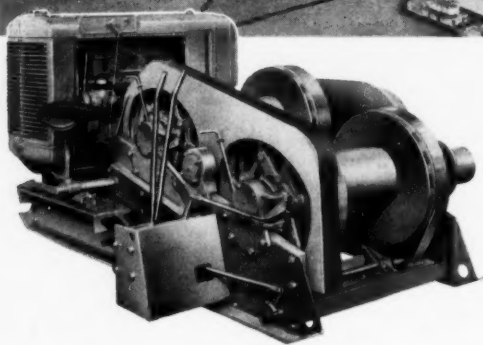


EUCLIDS



Move the Earth





the record of performance on the golden triangle points to Clyde's value

Investigate the complete line of Clyde Band Friction Hoists whether your need is a hoist for setting steel, hoisting concrete or high cycle material rehandling . . . there's a Clyde to do a better job. Available in one, two or three drum sizes with line pulls up to 21,000 lbs. and line speeds to 400 fpm. Write today for complete information.

On Pittsburgh's fabulous "Golden Triangle" project, Clyde Band Friction Hoists again prove their ability to spot loads swiftly, accurately, and safely. Where building schedules are tight, where material handling costs are paramount, contractors know they can depend on Clyde equipment.

Preference for Clyde hoists is based on these performance advantages: Smooth, positive clutch engagement and release . . . elimination of shock loads . . . split-second control for fast, accurate spotting . . . internal friction bands that dissipate heat faster, last longer, are quickly adjusted and that can be replaced without removing the drums . . . ball and roller bearings throughout results in greater operating economy and minimizes maintenance.



HOISTS . . . DERRICKS . . . CAR PULLERS . . . BUILDERS TOWERS . . . WHIRLEYS . . . ROLLERS . . . HANDI-CRANES

CLYDE IRON WORKS, INC.

ESTABLISHED 1899
DULUTH 1, MINN

Subsidiary of Barium Steel Corp.